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RESEARCH DIGEST

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BUREAU OF COMMUNITY PLANNING
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RESEARCH DIGEST
Editor: Scott Keyes

Editor's Notes

During recent weeks a number of excellent bibliographies have become available, several of which are discussed elsewhere in this issue. Another outstanding bibliography which came to the attention of the editor just as this issue was being printed is the new and revised edition of City Planning: A Basic Bibliography, by George Bestor and Holway R. Jones. Comprehensive in coverage and carefully selected, organized and annotated, this publication contains some 1,215 specific references plus much other useful material. Copies may be obtained at $3.00 each from the California Council of Civil Engineers and Land Surveyors, 1107 Ninth Street, Sacramento 14, California.

The editor is also pleased to announce the receipt of a grant to the Bureau of Community Planning of the University of Illinois from Resources for the Future, Inc. which is to be used in part to improve the coverage, content and format of the Digest, as well as to expand its circulation. Comments and suggestions from our readers will be appreciated. (SK)

Founded in 1954 by an informal organization known as the Urban Planning Research Group, the Research Digest is prepared and distributed semi-annually, in April and November, by the Bureau of Community Planning of the University of Illinois. Its objective is to serve as a medium of communication among individuals and groups engaged in urban and regional research. Abstracts are invited covering research projects recently initiated, projects well underway on which significant progress or findings can be reported, and projects recently completed. Brief notes on items of interest to researchers in this field are also desired, as are special articles in keeping with the character of the publication. Subscription is [illegible] per year. Address all communications to Research Digest, Bureau of Community Planning, University of Illinois, [illegible] California Avenue, Urbana, Illinois.

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URBAN GROWTH PROBLEMS AND RESEARCH

Robert C. Weaver [a]

I am both honored and pleased to have been asked to speak on this significant occasion in the urban affairs of Canada, when you are launching an organization to further the systematic diagnoses of the opportunities and problems of urban growth which are common to your country and to mine.

In the United States we do not, as yet, have a central council or clearing house for urban and regional research. This is something that we will have to organize before long to improve our research efforts, and I am sure that we will benefit from the experience that you are about to undertake. It may be helpful to you, however, to review briefly the research and study that is needed, and to take note of the welter of research on various aspects of urbanism that is currently done under various auspices in the United States.

* * *

During the past decade, the meshing of central cities and surrounding counties into an integrated economic metropolis has become a recognized pattern in the United States. There has also been a growing awareness of the declining fiscal base of the city. We realize that the revenue-short expanding suburb and their common transportation woes are related to physical and economic development of the entire area. Clearly, research and analysis are essential to help plan a more rational regional development.

As a first step there is a need to measure the impact of demographic trends upon the population growth of different regions and parts of regions. This requires not only measures of the natural increases of population, but also judgments as to the nature of the future migration and mobility in a country where one-fifth of the people change residences every year.

These changes in population location and density bring with them problems of social adjustment, physical accommodations, and economic development. These problems require identification in quantitative and qualitative terms, if we are to cope with them intelligently.

It will also be necessary to anticipate, as far as possible, where the people of our changing metropolitan regions will live, where they will work, play, go to school and do their shopping. If such prognostication is to be within a rational framework, we have to learn more about the economic functions of different types of communities and districts within a region. What are the appropriate regional functions of the central city, and what is the role of specific large cities within the economy of the Nation? And what should be the internal structure of the city with respect to the location of its industries and a balanced supply of housing for its various income groups?

(a) Administrator, Housing and Home Finance Agency. Text of an address before the Canadian Council on Urban and Regional Research, Chateau Laurier Hotel, Ottawa, March 16, 1962.

Research is also needed on the public and private cultural, commercial and health services that the city must provide for the residents of its region.

How should satellite communities be shaped--what should be their size, location and function in relation to the central city? We have to amplify and organize our knowledge about the relative advantage of having certain productive activities carried on in more spacious suburban areas, as compared with the central city and its cluster of activities that makes external economies available to many producers. Similarly, data on economies of scale for the provision of various public services have to be compiled and expanded, to serve as a guide for coordinated and efficient public services in an entire area.

Then, there are the clearly mutual interests of the central city and the rest of a metropolitan region which have to be identified and studied to develop more satisfactory methods of handling them. These common interests include the preservation of open space for recreational and scenic purposes, the development of an adequate regional transportation system, and the fiscal resources to provide the necessary public capital improvements for the future development of the region. To treat these regional problems effectively, new forms of local intergovernmental arrangements and organizations have to be developed, and this, in itself, is a major area for study.

Research Activities in the United States

In recent years a number of regional studies have been executed which attempted a simultaneous attack on a number of variables shaping the growth of a region in the United States.

The most extensive of these studies was the New York Metropolitan Regional Study which resulted in the publication of ten volumes on the economic, demographic and sociological trends in a 22-county region that extends into New Jersey and Connecticut, and embraces 16 million people. The study was under the supervision of the Harvard University Graduate School of Public Administration which assembled a task force of experienced analysts to perform the compilation and analysis of relevant data. As you may know, the New York regional study stirred some healthy controversy as to whether a continuation of present trends leading to a decline of older parts of the central city are inevitable, or whether we can bestir outselves and restore the vitality of declining districts.

Currently, there is under way an extensive program of economic study of the upper midwest region of the United States. The geographic coverage of this regional study program is indicated by the participating agencies headed by the University of Minnesota and the Upper Midwest Research and Development Council, and the cooperating agencies which are the State Universities and Colleges of Montana, North Dakota, and South Dakota, and the Federal Reserve Bank of Minneapolis. The studies will cover a wide range of demographic and economic developments in the region, including urban migration, urban fringe areas, the labor force, personal income, recreation resources and the agricultural economy of the region.

The Pittsburgh Regional Planning Association is conducting a study of the Pittsburgh metropolitan region. A co-sponsor of the Pittsburgh study is the Pittsburgh Regional Industrial Development Corporation, a not uncommon type of private, nonprofit local organization that has been formed to attract industry to a region and further its economic development. The Pittsburgh regional study is under the direction of a leading staff participant in the New York Metropolitan Regional Study. He has assembled a task force of urban affairs experts, drawn mainly from university faculties.

In contrast with the large regional studies there are numerous so-called economic base studies of smaller urban areas made in the United States. These analyses may be for moderate-sized cities or for an entire county. They frequently involve population projections, land use needs, public facility requirements and housing needs. Such studies are typically done by the business and economic research bureaus of large universities, particularly the state universities such as we have in Wisconsin, Texas, Maryland, and other states. Sometimes they are carried out by consultants.

The economic base studies made by consultants for a community will frequently be in connection with a development plan that is required as part of a Workable Program for Community Improvement which, in turn, is a prerequisite for federal assistance for urban renewal or public housing. The planning itself may be aided with a federal grant, under the urban planning assistance program of the Housing and Home Finance Agency.

As a result of experience with the urban planning assistance program, which goes back to 1954, there has been a crystallization of thought as to the function of the planning process and the research findings that result. If planning is to serve its purpose, it must be a process which provides current data to help public and private decision makers arrive at rational decisions as to capital improvements that will affect the growth of their urban area.

One of the most extensive projects designed to fulfill this purpose is the Penn-Jersey Transportation Study that was started two years ago. Almost four million dollars are being spent. The work includes compiling and analyzing data on the existing locational pattern of residential, commercial, industrial and public facilities, and uses of transportation facilities. Based on this information and thousands of interviews to ascertain location and transportation preferences of consumers and businesses under alternative future development patterns, computers are employed to project alternative growth models for the region.

The officials of cities and counties in the region, who are on the policy committee for the study, and private industry representatives on advisory committees, will then be able to use the models in making their decisions with knowledge of how their determinations may affect the future economic growth of the region and their particular urban areas in the region. Funds for this study have come mainly from the United States Bureau of Public Roads with contributions by two states and nine counties.

There are many ancillary problems for which solutions must be found if our urban research and planning is to be effective. They require research on the economic impacts of alternative ways in which the component physical factors that enter into the make-up of an urban area are provided, utilized and controlled.

A basic urban problem in the United States has been the land use pattern that has evolved as a consequence of the concentration of population growth in metropolitan areas, with a concurrent diffusion of development within the metropolitan areas. The result is popularly known as urban sprawl. To cope with this phenomenon we have to identify the factors leading to the present pattern of land use, measure their impact, and analyze remedial control methods.

Some broad studies of the demographic trends that lead to our present urban land use pattern have been supported by large foundations, such as the Twentieth Century Fund Study on Megalopolis, or a study of Migration and Urbanization in the United States that is in process at the University of Pennsylvania Population Research Center. The basic data for such studies are generally available from decennial population statistics for geographic areas and are published by the United States Bureau of the Census.

The explosive growth of the urban population in the United States over the last two decades has been accompanied by a marked uptrend in urban land prices. In response to the long-term rise in urban land prices, and their effect upon land uses, there are current research programs concerned with special aspects of this problem in the United States.

The Urban Land Institute, a private nonprofit organization supported largely by companies in the real estate, building and mortgage lending businesses, has a current program of scheduled studies on Changing Urban Land Uses as Affected by Taxation. The individual studies would include analyses of the impact upon land uses of property taxes, alternative forms of taxation and tax abatement or exemption.

The U.S. Department of Agriculture has made staff studies of alternative forms of local taxes that may be levied upon land in agricultural use in the metropolitan fringe areas. These studies have explored the effects upon land ownership, use and prices of "ad valorem" taxes based upon urban land values, compared with the effects of preferential assessments of land in agricultural use and other devices, such as tax defferals or taxes on capital gains.

The relationship between land values and distance from the center of a city and from major thoroughfares has been studied by the University of Kansas in the Topeka, Kansas, area. If we had more information on this subject we would develop more rational policies to guide the use of land for different purposes in an urban area.

This brings to mind another facet of research related to urban land policy, namely, methods of public control of land use for planned development and for specific uses. Thus, at Michigan State University a project has been undertaken to determine appropriate zoning and other land use regulations for urban fringe areas.

As another example of a special study related to land use control, the University of Pennsylvania Institute of Legal Research recently made an analysis of legal problems in the preservation of open space in metropolitan areas without public land acquisition. This study was part of the Pennsylvania-Delaware-New Jersey Metropolitan Project, a tri-state regional research project covering a region from Trenton, New Jersey, to Wilmington, Delaware.

Within cities, land uses are constantly changing as redevelopment takes place. I recall a series of land use maps of London at fifty-year intervals which illustrated how that city had been substantially rebuilt every half century over a few hundred years. These changes are in response to changing technology, such as reinforced steel construction, automatic elevators and automobile transportation. With the increased pace of technological innovation, cities will change at a more rapid rate and we must have the bases for well-planned redevelopment.

Redevelopment under the Federally-assisted urban renewal program is becoming an increasingly important factor in the future shape of our cities in the United States. We are building into the urban renewal program a procedure for comprehensive research, analysis and planning of future development for the entire city.

For this purpose Federal grants are made to cities for the preparation of community renewal programs. These programs serve to identify and measure the extent of slums and blight; to determine the financial and relocation resources available and needed to renew the areas of slums and blight; to identify the future project areas and types of renewal that will be required, and to schedule urban renewal activities.

We are also concerned with the development of new and more effective urban renewal techniques which will have general applicability in many communities. To help develop such techniques we have an urban renewal demonstration grant program. Under this program, a Federal grant is made to cover two-thirds of the cost of a demonstration project, while the state or local public body sponsoring the demonstration must contribute the other one-third. The public sponsor may assign its own staff to do the work, recruit staff especially for the project, or contract with consultants or public or private institutions to do the work.

Generally, demonstrations directly concerned with urban renewal, such as on methods and techniques for easing relocation and rehousing families, have been done by local redevelopment agencies. There have also been projects by state bodies, as for example, one on establishment of a method of combating blight through conservation and rehabilitation, by the Temporary State Housing Rent Commission of New York. This demonstration project was undertaken when I was the State Rent Administrator of New York. University groups have done demonstration studies under contract on such subjects as "Economic Aspects of Urban Renewal" and methods for coordinating and integrating urban university development programs with urban renewal efforts.

One of the objectives to be sought in our future urban growth is a pattern of locational relationships within a region which will minimize the frictions of transportation and commutation. Toward this end, we need a balanced supply of housing in the city and in the suburbs where lower-income people may be employed in commercial establishments and increasingly in industrial establishments. To formulate policies that will bring about a balanced supply of housing, we have to know, first, the pattern of effective demand, and how it is affected by different government programs and different types of financing.

Studies concerning special segments of the market have been carried on by university research groups. For example, at Temple University, a study is under way on financial programs for lower-middle income housing. Two other studies are on The Housing Market and Urban Renewal at the University of Pennsylvania Institute for Urban Studies, and on Housing Needs for the Aged at Cornell University Center for Housing and Environmental Studies. At this point, I wish to note that my Agency will obtain a wealth of information on housing needs of the aged, by arranging for special tabulations on the characteristics of our senior citizens gathered in the 1960 Census.

To have a balanced housing supply for different income groups in different parts of the metropolis, we need to have--in addition to prices, rents and financing that are commensurate with incomes of the groups to be served--freedom of choice in residential location. Through zoning or less formal devices, low-income workers and minority groups are excluded from certain areas. This has been extensively documented by the United States Commission on Civil Rights, a Presidentially-appointed Commission and by the Commission on Race and Housing, a private nonprofit commission of distinguished citizens.

I had the pleasure of serving on the Research Advisory Committee of the Commission on Race and Housing which financed numerous studies that were generally made by university faculty members. Some of these studies, on property values and race, helped puncture the myth that the entry of minority groups into a neighborhood inevitably causes a decline of property values. Other studies investigated housing demands in racially-mixed areas, to determine what circumstances facilitate a stable balance of an integrated neighborhood.

In the context of market economics, we need a balance of supply and demand in local housing markets. For this purpose, there is a continuing need for current housing market analyses. In connection with the Federal Housing Administration mortgage insurance program, the Public Housing Administration low-rent housing program, direct Federal loans for senior citizens housing and urban renewal relocation housing needs, the HHFA and its constituent agencies make periodic analyses of local housing markets where there are program activities.

In less than a dozen metropolitan areas, there are private residential research groups that publish periodic reports containing market information. These reports by local real estate, mortgage lending and homebuilding industries may be prepared with the collaboration of a local university research bureau. The reports carry metropolitan area information on homebuilding volume, vacancies, and price trends.

The Federal Government, through the Bureau of the Census, has been providing two broad indications of national housing market conditions. These are a monthly series on housing starts and a quarterly series on housing vacancies. This year, under contract for the Housing and Home Finance Agency, the Bureau of the Census will initiate a new monthly series of current housing market data.

This series will provide monthly information for the country as a whole and for three major geographic regions on the number and price distribution of new one-family homes sold, of new one-family homes under construction but unsold and of new one-family homes completed but unsold. There will also be some information--to be published quarterly--on the types of financing and certain basic physical characteristics of the new homes sold in different price classes.

The types and densities of housing located in different parts of a metropolitan region will affect the need for transit facilities and highways in the area. And the provision of highways, of course, shapes the residential development and density of a metropolitan area. Whatever the casual relationships, we have developed highly uneconomic modes of transportation for our necessary every day journeys to work, to shop, to visit, and so forth. The predominant mode of passenger transportation by private automobile brings to the fore such problems as traffic congestion and regulation, the need for parking facilities, and increased air pollution.

Research on the effects of highway construction upon land uses and values has often been done by university bureaus of community planning and economic research, by geography divisions of universities and by state highway departments.

Recently the focus of urban transportation research has been broadened to include studies of all types of urban transportation and their relation to land use planning, studies of rail commuter services and regional transportation studies analyzing all possible transportation modes. Studies of this type have been undertaken by the Joint Center for Urban Studies of M.I.T. and Harvard, by the Institute of Public Administration in New York, and by metropolitan regional transportation authorities or study groups that have been organized in some of our metropolitan areas.

The need for more effective urban mass transit has become so widespread that it has assumed national proportions in the United States. In response to this need, the Congress last year authorized the Housing and Home Finance Agency to make loans to state and local bodies to finance the improvement and installation of mass transit facilities.

We were also authorized to make grants for demonstrations to develop more effective means of mass transit. These grants will generally be made to local public agencies which may utilize the services of private engineering, management and research organizations, including those at universities, to keep records and prepare analyses of the research projects.

Whether it concerns transportation, water and sewer facilities, or public school capital outlays in a metropolitan region, planning and development is too infrequently done on a comprehensive urban area basis. All too often the individual jurisdictions in an area prefer to go it alone and try to handle their own planning and land controls. But this parochial approach is increasingly recognized as inadequate, and a host of arrangements in governmental organization for coordinated public services in a region are being tried in the United States.

Studies on public administration, or "the science of muddling through", as one writer phrased it, have generally been made by scholars who have surveyed the problem broadly in books or articles that have been published. In the current research program of the HHFA we have a project to provide information on the most promising methods that have been employed by political jurisdictions in an urban area to prepare and implement joint plans for capital improvements and services.

With respect to one aspect of urban research, namely, technological research on building materials and methods and the related subject of building codes, much remains to be done. At present, our National Bureau of Standards, which is part of the Department of Commerce, is engaged primarily in the development of measurements of performance of materials and equipment. With respect to building, the work of the Bureau would include ways to measure the durability of materials or structural components under different environmental conditions or fire resistance of different building materials. Upon request from another Government agency, the Bureau of Standards will test performance characteristics of a specific product.

In conjunction with its mortgage insurance operations, the Federal Housing Administration conducts a contract research program for the analysis of materials and construction methods, soil conditions, architectural developments and other technical matters related to residential construction.

Some of the FHA projects are carried out by the Building Research Advisory Board, an arm of the National Academy of Sciences. The Building Research Advisory Board may have field investigations made by its own staff or employ special task forces for the studies. Some of the FHA technological research projects are also carried out under contract at universities which have the necessary staff and facilities. Work is also done under the FHA program by other Federal agencies, such as the Public Health Service and the Forest Products Laboratory.

Product development is carried on by private producers of building materials and equipment that enter into housing.

The Gap Between Actual and Needed Research

Although there is a good deal of urban and regional research in progress in the United States, there are many gaps that have to be filled. For a systematic and continuing analysis of urban development requirements in a metropolitan region, there is a need for periodic compilation of the necessary regional data on population, housing, land use, transport modes, employment, income and other variables. Some experimental beginnings are being made to develop metropolitan data banks in a few areas. Such data bank organizations would employ computers to process regularly-collected information in a form that would be useful for urban planning and development.

In connection with the pattern of urban land use and its economic impact, knowledge is needed of the availability, absorption, and price trends of urban land for different uses.

The pattern of land development will be greatly influenced by the future transportation facilities that are build to meet one of our most pressing metropolitan problems, increasing traffic congestion. Many metropolitan areas are now arranging to undertake comprehensive transportation planning studies. If the transportation facilities are to serve growth most satisfactorily and at least total cost, we have to know more about the transportation choices that are made by consumers. A study on modal choice in urban transportation is needed to ascertain at what levels of mass transit service and costs consumers would be willing to use mass transit instead of owner-operated vehicles in their daily trips.

Another research project which has a high priority relates to economies of scale in public and private community services. The purpose would be to provide communities and regional bodies with information about the efficient size of various facilities, such as for sewage and water processing, and the amount of population required to support such facilities.

The question of economies of scale is related, of course, to the broader question of regional development. This question requires exploration of the functions which can be efficiently and desirably located in central cities, and the size and functions of economically viable satellite cities.

In order to frame national housing programs that will enable different segments of our urban population to obtain the necessary housing, we need information on housing market transactions that go beyond any market information that is currently obtained. For this purpose, we need an annual sample survey of families that have changed residences during the preceding year. Such a survey would obtain information on the size, quality and purchase price or rent of housing being obtained by families of different age, family and income composition, the financing terms involved, and the previous place and type of housing.

How Research is Presently Sponsored in the United States

A most important consideration in carrying on research is, of course, the means of financing it. One source of research sponsorship in the United States is the Federal Government. I have mentioned the partial grants that are available for the preparation of Community Renewal Programs and for urban renewal demonstration projects.

The Community Renewal Programs, which are now being approved at a rate of about eight million dollars a year, are considered an integral part of the urban renewal process and are financed from the much larger amount of funds authorized for urban renewal grants. The demonstration project grants are financed from the same basic source, but within a present limitation of five million dollars for this purpose. We are asking that this limitation be increased since the demonstration grants have been absorbing about one and one-half million dollars per year.

Another demonstration grant program, to help develop new and improved methods for the provision of housing low-income families is administered by my Office of Program Policy. This program, with an authorization of five million dollars for grants, was included in the Housing Act of 1961 and we expect to approve the first few projects shortly. The grants may cover all or part of the demonstration, but contributions by local public or nonprofit sponsors will be a consideration. The sponsors may make third party contracts with university or other organizations to do all or part of the development work and reports on projects.

The HHFA also administers the Urban Studies and Housing Research Program which I have mentioned. There is at present a total authorization of $2.5 million for such research in the housing law, but our annual expenditures are limited to funds appropriated by the Congress for specific studies. For the current fiscal year we have an appropriation of $375,000, and we have requested $1,450,000 for next year.

I have also mentioned the program of Federal Urban Planning Assistance grants that are available to state and local planning agencies from the Housing and Home Finance Agency. Such grants may cover two-thirds of the planning cost, or three-fourths of the cost if it covers planning in an area that has been designated as an economically-depressed area and is eligible for grant and loan assistance under the Area Redevelopment Act of 1961. Communities or metropolitan and regional planning bodies in jurisdictions of 50,000 or more population may apply directly to the Housing and Home Finance Agency for urban planning grants. Smaller localities may only receive such planning assistance through a state planning or other agency that has been designated by the state to carry out this function. There is a total authorization of seventy-five million dollars for urban planning assistance and about fifteen million dollars per year is presently being used.

Another source of Federal assistance for urban planning and economic research in the United States is the highway research funds that are available under the Federally-aided highway programs. Under its programs the Bureau of Public Roads makes grants to the states to cover from fifty per cent of the highway construction costs in some instances, up to ninety per cent of the cost in connection with the 41,000 mile, twenty-five billion dollar interstate highway program authorized in 1956, and scheduled for completion toward the end of this decade.

The states may use for research up to one and one-half per cent of the Federal grant highway funds allocated to them. Most of the highway research funds are used for engineering and traffic movement studies, such as materials-testing and origin-destination studies. Some of the latter are useful, of course, for regional economic analyses and development plans.

About ten million dollars to fifteen million dollars of the highway research funds are used each year for projects that also involve comprehensive planning related to transportation for a large urban or regional area. Therefore, we have established a committee and regional subcommittees to coordinate the use of highway research funds and urban planning assistance funds available from HHFA. Procedures have been established to avoid duplication of planning and related research efforts in a particular area, and to allow funds from both sources to be used where the situation warrents it.

A noteworthy method of supporting urban research is that used in connection with the Residential Research Program carried on at the numerous state universities and colleges in California. Funds for this program are derived from a portion of the real estate transfer taxes which the state law requires shall be used for the program.

There are also a variety of state and local agencies that provide funds for urban research. Some of these are state economic development commissions or housing and commerce departments of state governments. Local housing and redevelopment agencies have contributed to or sponsored research. Then, there are large special authorities, such as the Port of New York Authority, which carry on regional research and planning in connection with their responsibilities.

In speaking of the types of organizations engaged in urban and regional research, I have mentioned various institutes of urban studies at universities. These centers for urban studies are farily new and have been nurtured by millions of dollars of private foundation grants plus some research funds that were made available through Federal programs concerned with urban development.

I cannot refrain from mentioning the Ford Foundation which has contributed generously to the support of a number of large regional and other urban studies. Incidentally, I am a proud alumnus of the Ford Foundation. Other private organizations, such as the Rockefeller Brothers Fund, the Kellogg Foundation, the Eugene and Agnes Meyer Foundation, the American Committee to Improve Our Neighborhoods, and others have provided funds for research by the university centers for urban studies. I think it is most important that these centers should be employed increasingly in connection with research required by all levels of Government--Federal, state and local --since they are vital to the formulation of effective program policies.

The Federal Role in Research

Over the next decade, there will be hundreds of billions of dollars invested in local public facilities, in private utilities and in private commercial and industrial enterprises in my country. To the extent that urban and regional research can provide a basis for rational decisions as to the location, size and type of public and private facilities to be built, I think the benefits will far outrun the costs to our society.

If my description of urban and regional research activities in the United States has been somewhat disorganized, I must confess my belief that it reflects the real situation. We have to develop a better clearing-house organization in this area. In the near future, I hope to initiate an approach to such an organization within the Housing and Home Finance Agency. However, these remarks have, I believe, indicated that when and if there is such a function within the Agency, there will already be a large volume of research to feed into it.

You are now inaugurating an activity that is essential for efficiency in urban research and ultimately for the efficiency and livability of our highly urbanized economies. I am sure that we will learn a good deal from the experience of your Council. Certainly we shall observe your activities in this area with great interest.

In closing, may I extend my congratulations and best wishes.

1. RECENT TAX CHANGES AND INDUSTRIAL DEVELOPMENT IN PENNSYLVANIA

Main Investigator: Kenneth G. Ainsworth.

Status of Research and Publications: Data collected, final analysis underway.

Agency: Allegheny College, Social Science Research Fund.

Previous Digest Report: None.

Research Problem. The relationship between taxes and industrial development has been considered many times, usually with special emphasis on interstate differences in tax burdens. Much less emphasis has been put upon inter-locational tax differences within a state or economic region. Tax differences between locations within a state or region would be much more likely to have an actual effect on the final choice of an industrial site than the usual interstate tax differences. This study evaluates recent tax changes in Pennsylvania for their impact on the location of industry among states and within Pennsylvania.

Hypothesis. Industrial development in Pennsylvania will proceed in a more orderly and advantageous pattern, but not at an appreciably faster rate, on account of recent tax changes in the state.

Method of Study. State and local tax bills of hypothetical corporations are estimated for 1953 and 1958 at numerous locations in Pennsylvania. The changes in the tax bills are considered first in relation to total cost sales and invested capital. These ratios will then be compared with similar ratios found by others who have considered the relationship between location of industry and interstate differences in state and local tax burdens. Next, interlocational tax differences within Pennsylvania for 1953 and 1958 will be evaluated. The plan is to consider city, township, and borough locations separately for 1953 and 1958 for the whole state and then for several geographical subdivisions of the state. The emphasis in this part of the study is not upon changes in the level of taxation from 1953 to 1958 but rather upon inter-locational tax differences in Pennsylvania for 1953 and for 1958.

Tentative Findings. It is clear that recent tax changes have decreased the tax bills of industrial firms and that the inter-locational tax differences within Pennsylvania were greater in 1953 than in 1958. The effects of these changes on industry are not so obvious. However, the tax changes, substantial though they have been, are in general no larger than those which other researchers have found to be of minor importance so far as the location of industry among the states is concerned. The greater uniformity of industrial tax burdens at the various locations in the state promotes the establishment of industry in closer accordance with resource costs and market accessibility. (KGA)

2. PERFORMANCE STANDARDS FOR SPACE AND SITE PLANNING FOR RESIDENTIAL DEVELOPMENT

Main Investigators: H. Peter Oberlander, W. Gerson, Raymond D. Goldsworthy.

Status of Research and Publications: This is a continuing study. The fourth stage commenced July, 1961, and is to be completed by April 30, 1962. Publication will be in the form of internal reports of the Division of Building Research, National Research Council. In previous stages, the first consisted of an annotated bibliography, the second investigated the factors which determine the spacing of residential buildings and the third stage presented an hypothesis for a proposed technique for applying performance standards to the siting of residential buildings. First stage report has been published, and second and third stage reports will soon be published by sponsor.

Agencies: University of British Columbia, Department of Community and Regional Planning and School of Architecture. Project undertaken at the request of, and sponsored by, Division of Building Research, National Research Council, Mr. R. F. Legget, Director.

Previous Digest Reports: 7:2-1, 8:1-2 and 8:2-4.

Research Problem. The purpose of the current study is to determine in some detail, the relationship of site planning and the spread of fire in residential areas.

Hypotheses. The research is being conducted to test the hypothesis that more flexible controls, based on technological data, are capable of producing a better residential environment.

Method of Study. This stage has been organized into two basic divisions. The first consists of field surveys of three existing residential areas. The data thus obtained can then provide the basis for formulating a technique for applying performance standards to the prevention of fire spread from building to building through the flexible use of space between them. (HPO)

3. PROFESSIONAL, TECHNICAL, AND MANAGERIAL MANPOWER NEEDS OF THE CITY OF NEW YORK

Main Investigators: David T. Stanley and W. Richard Lomax.

Status of Research and Publications: Research underway, scheduled for completion approximately September, 1962. Publication of report containing findings and recommendations scheduled about the end of 1962.

Agency: The Brookings Institution, under sponsorship of Mayor's Committee on Professional, Technical, and Managerial Manpower.

Previous Digest Report: None.

Research Problem. To investigate factors in the recruitment and retention of professional, technical, and managerial employees for the New York City government.

Previous Relevant Research. Studies by the Mayor's Committee on Management Survey (1951), Study of Classification and Salary Problems by Griffenhagen & Associates (1954).

Hypotheses. The following general hypotheses are suggested in the project design: (a) many of the occupations covered in the study are in short supply nationally as well as locally; (b) certain provisions of law, regulations, and budgetary procedures create difficulties in filling positions promptly and satisfactorily; (c) salaries in some of the occupations studied are not competitive.

Method of Study. (a) extensive interviewing within city departments and agencies; (b) comprehensive survey of judgments of scientific samples of employees, former employees, prospective employees, and others; (c) analysis of available information concerning personnel practices in the New York City government and among comparable employers. (DTS)

4. COMMUNITY CONFERENCE PROGRAM

Main Investigator: John Osman.

Status of Research and Publications: Staff operation to end June 30. Any continuation of work in local communities is tentative.

Agency: The Brookings Institution, Committee on Problems of the American Community.

Previous Digest report: 7:2-2.

Major Findings. The Community Conference Programs (Cincinnati, Ohio; Baltimore, Maryland; Newark, New Jersey; and Lansing, Michigan) have supported a number of basic premises: (1) these programs are a valuable learning experience - creating an awareness and understanding of urban problems on the part of social scientists, and instruction for the practitioners in the value of utilizing the many resources of the community, including the local university; (2) these programs provide a public forum for objective discussion and consideration of community problems, many of which are controversial in nature; (3) local practitioners welcome the aid of social scientists. However, the latter often need an assist or "education" prior to involvement in such a community program; (4) a "continuing catalyst" is needed in the community. An individual or organization which will carry on the association between town and gown. The university, with an established urban research center, could serve this function. (HEH)

5. INTERACTION BETWEEN DISCRIMINATION, INTERREGIONAL MIGRATION AND REGIONAL DEVELOPMENT

Main Investigator: Richard D. Raymond.

Status of Research and Publications: In process. Study to be submitted as doctoral dissertation.

Agency: Brown University, Department of Economics, under a Fellowship from Resources for the Future, Inc.

Previous Digest report: 7-2-3.

Using 1950 census data, cities and SMA's were grouped in the following size classifications: (1) 100,000 to 250,000; (2) 250,000 to 1,000,000; (3) 1,000,000 to 3,000,000; (4) 3,000,000 plus. The South and the non-South were investigated separately. The ratio of Negro to White male median income did not vary appreciably with the community size in either the South or the non-South.

Using the same source, each state was regarded as an observation, and was divided into the following three geographical subdivisions: (1) rural farm; (2) rural non-farm and urban with less than 100,000 population; and (3) urban with 100,000 or greater population. No consistent between subdivision variation was observed in the ratio of Negro to White male median income.

Since the 1940 census did not contain a racial breakdown for income, Negro economic progress during the 1940's was estimated by using an elaborated occupational representation procedure. The rise in the approximated ratio of Negro to White male median income was about 32% for the country as a whole. The rise in the South was 28% and in the North 4%. (For earlier, and quite different results, see Gary S. Becker, The Economics of Discrimination, Chicago: The University of Chicago Press, 1957, Chapter 9. Also, Elton Rayack, "Discrimination and the Occupational Progress of Negros", The Review of Economics and Statistics, V. 53 (May, 1961).)

An attempt is now being made to determine the effect of industry mix upon the racial income ratio. The method consists of first forming industry subgroups (one each for the U.S., the South, and the non-South), primarily from the manufacturing sector, and exhibiting the following characteristics: (1) high incomes relative to other industries, (2) high Negro to White income ratios, and (3) large Negro representation. Each SMA is regarded as an observation and the industry mix variable is the ratio of subgroup employment to total employment in the SMA. Preliminary results indicate that the importance of a small group of industries in the non-South (primary iron and steel, motor vehicles, meat products and water transportation) serves to explain an appreciable amount of the variation in the racial income ratio between SMA's. A somewhat larger group in the South explains less of the variation between the southern SMA's. The regression equation for the entire U.S. has not been calculated as yet, but my present impression is that the industry mix, in conjunction with percentage Negro in the SMA's, will explain a large part of the variation in the racial income ratio for the country as a whole. (RDR)

6. ECONOMIC CONSIDERATIONS IN THE DISTRIBUTION OF HIGHWAY REVENUES IN CALIFORNIA

Main Investigators: Richard R. Carll and Tillo E. Kuhn.

Status of Research and Publications: Completed. Publication in Spring, 1962.

Agency: University of California, Institute of Transportation and Traffic Engineering, Berkeley.

Previous Digest report: 7:2-6.

Research Problem. To describe process of capital formation for road investment in various geographic regions within the State of California. The purpose is to compare allocation of capital funds with various regional characteristics which indicate highway transport needs.

Method of Study. (1) Separate description of public policies - federal, state, county and city - which determine the geographic distribution of highway user tax revenues. (2) Division of California into eleven geographic regions for purposes of analysis. (3) Combination of highway money distribution from all sources into a single fund for each of the several regions within California. (4) Comparison of the aggregate allocation of highway money to each region with highway needs, population, vehicle registrations, travel, local road financing, and other factors. (5) Discussion of results.

Major Findings. Upon reviewing the development of California's tax apportionment policy, the study finds that the expanding scope of state highway interests has steadily reduced divergences between the regional distribution of funds, the investment needs of roads and streets, and the geographic source of highway revenues. Historical differences in these factors occurred because of the focus of state policy upon providing a network of roads having "state-wide interest", while making a modest extension of aids to local governments. The resulting spread of funds was unfavorable to areas with large urban populations, in which the highway needs occasioned by local traffic movements were of greater importance. However, the prewar decision of the State to assume responsibility for arterial urban highways brought a recognition of local traffic needs and a geographic redistribution of funds to meet them. The legislation effecting this change is described in the study.

At the present time, the allocation of all federal-state highway money among the diverse regions of California is in fairly close agreement with the distribution of population, motor vehicle registrations, and motor vehicle travel, except in the sparsely-settled mountainous and desert areas. Also, the proportion of total road expenditures financed from local taxes is about the same among regions, despite the substantially larger allocation of state funds to the counties than to municipal governments. This distribution appears to be consistent with the taxation principles of state highway finance and with the major expenditure objectives.

The authors also analyze issues involved in integrating state distribution policy with regional transportation planning. (RRC)

7. PUBLIC ENTERPRISE ECONOMICS AND TRANSPORT PROBLEMS

Main Investigator: Tillo E. Kuhn.

Status of Research and Publications: Completed. Manuscript in press. Book to be published by University of California Press and Cambridge University Press, July, 1962.

Agencies: University of California, Institute of Transportation and Traffic Engineering, Institute of Business and Economic Research, School of Business Administration, Berkeley.

Previous Digest reports: 7:2-7 and 8:1-5. (TEK)

8. TRAFFIC PATTERNS IN RELATION TO CAPACITY DEFICIENCIES

Main Investigators: Wolfgang S. Homburger and Richard R. Carll.

Status of Research and Publications: Project in progress since Spring 1959; expected to continue for several years. Findings on some aspects of the project published in: Carll, Richard R., and Homburger, Wolfgang S., Some Characteristics of Peak Period Traffic. A paper prepared for the 41st Annual Meeting of the Highway Research Board, Washington, D.C., January, 1962. (Mimeo copies available from authors). Statistical summaries of traffic data are mimeographic as obtained, and are available to interested agencies.

Agency: University of California, Institute of Transportation and Traffic Engineering, Berkeley.

Previous Digest report: 7:2-8.

Major Findings. Several suggestions may be offered about the effects of sustained traffic congestion upon the spread of the peak and the total volume of peak period traffic: (1) Vehicle congestion has caused a rather considerable use by passenger cars of "inferior routes." (2) Stalls and delays associated with intense vehicle congestion act to spread the peak by causing sporadic queuing of cars. They may also reduce total peak volumes where they occur so frequently that their probability enters into driving decisions. (3) The peak period data suggest that extreme congestion tends to shift travel in some trip purpose categories. This seems evident for motor trucking; an absolute decline in truck flow, as well as a reduction in the percentage of trucks in the total flow of vehicles has been found during the maximum vehicle peak. (4) There is a natural spread of the peak which is fairly independent of transport media, but determined by the spread in working hours of different employee groups, and geographic factors. (WSH)

9. GENERAL AVIATION IN CALIFORNIA

Main Investigator: Walter E. Gillfillan.

Status of Research and Publication: Research completed. Findings published in: Gillfillan, Walter E., California General Airports, Aircraft, and Flight Activity. University of California, Institute of Transportation and Traffic Engineering, Berkeley. Special Report, June, 1961, 46 p.

Agencies: University of California, Institute of Transportation and Traffic Engineering, Berkeley, in cooperation with the California State Senate Transportation and Public Utilities Committee.

Previous Digest report: 7:2-9.

Major Findings. (1) Of the 500 airports in California, 300 may be regarded as open to public use, although less than 200 of these provide fuel service and an attendant. Of the 300 public-use airports, 176 are publicly owned; the 124 that are privately owned accommodate 27% of the general aviation aircraft based in California. (2) Many California airports appear to be vulnerable to attrition or encroachment, since they are not protected by zoning or other means. Residential proximity at runway ends and sides appears to have reached the serious stage at some airports. (3) There are apparently more than 10,000 active general aviation aircraft in California. Most of the aircraft are owned by individuals. Primary uses of the aircraft are for personal transportation (pleasure) and for business. (4) On the whole, ownership and use of aircraft in California follow national trends, but California's aircraft are somewhat newer and larger than those of the nation as a whole. (5) On the basis of distance and travel times, airports appear to be well located in relation to the homes or places of business of the aircraft owners. (6) Utilization of general aviation aircraft in California in terms of annual hours flown accords with national patterns, with the typical (median) aircraft flying between 100 and 150 hours per year. Business-owned aircraft are flown more intensively and those owned by fixed-base operators the most intensively of all. (7) Owners' reports were received covering the flight activity of about 4,500 general aviation aircraft during a typical week. They revealed an average of 6.0 trips per aircraft per week, consisting of 3.4 local trips (that is, flights with take-off and landing at the same airport), and 2.6 cross-country trips (each flight from take-off to next landing at a different airport counted as one trip). Business-use aircraft were flown with greatest frequency in cross-country travel and accounted for over half the cross-country mileage flown. (8) The average length of cross-country trips is 101 miles; over 95 per cent of the cross-country trips are intrastate. (9) Flight data classified by geographic areas of the state indicate that rather high proportions of cross-country trips take place entirely within an area, although the proportions vary considerably among the areas. (10) In certain areas a considerable volume of airport activity is generated by aircraft which are not based in the area, indicating that number of based aircraft is not an accurate index to operations, especially in small areas or at individual airports. (WEG)

10. NATURE AND ECONOMIC SIGNIFICANCE OF METROPOLITAN PEAK DEMAND PATTERNS

Main Investigator: Tillo E. Kuhn.

Status of Research: Initiated March, 1962. Completion is expected by Spring, 1963.

Agencies: University of California, Institute of Transportation and Traffic Engineering, School of Business Administration, and Bureau of Business and Economic Research, Berkeley.

Previous *Digest* report: None.

Research Problem. This study examines short-run cycles and peak phenomena in regulated industries in the San Francisco Bay Area, principally electricity, gas, water, telephone and telegraph, bridges and freeways, buses, airports and airways. An important phase of the study will be to develop a methodology for defining, measuring, and comparing peaks. The specific characteristics of peaks and troughs in the demands for the services of regulated industries will be examined. Particular attention will be paid to the methods by which the different enterprises resolve the problems associated with peak demands, and these methods will be evaluated by criteria of welfare economics. The study will examine the hypothesis that there are discernible rhythms or patterns in the occurrence of the peaks in certain of the industries mentioned above, e.g., the morning congestion on some freeways and scheduled departure times of major airlines from San Francisco International Airport. Some alternatives to the traditional means of dealing with peak phenomena may be proposed.

Previous Relevant Research. Although there are interesting economic analyses of peak phenomena, no previous studies could be found so far which systematically define, measure and compare different technological peaks, or which attempt to treat short-run cycles as a manifestation of the economic pulse of metropolitan areas.

Method of Study. The study will progress in five main stages: (1) development of an appropriate methodology; (2) search of literature; (3) collection and examination of data; (4) an economic evaluation of the various methods employed to deal with peaks; and (5) an examination of the overall pattern of the peaks in the San Francisco Bay Area. (TEK)

11. PROBLEMS OF TRANSPORT PEAKS

Main Investigator: Charles A. Hedges.

Status of Research: In process. Completion expected by fall, 1962.

Agencies: University of California, Economics Department, Institute of Transportation and Traffic Engineering, Berkeley.

Previous Digest report: None.

Research Problem. This study examines use of a special peak-hour toll to reduce rush-hour congestion on the San Francisco-Oakland Bay Bridge, and is being conducted in conjunction with the study by Dr. Kuhn described above. The nature of peak congestion on the Bay Bridge will be examined and alternative methods which have been proposed to deal with the peak-hour traffic on the Bridge will be explored and evaluated. Particular attention will be paid to present highway engineering concepts of "capacity" and some of their economic implications. The proposal will be examined that the "optimum", or economically efficient solution to the peak problem on the Bay Bridge may require differential tolls to make travel by automobile during the peak periods more expensive than travel by that mode during the off-peak periods or by alternative modes during the peaks. The study will try to determine whether such a toll may induce automobile drivers to (1) substitute public means of transportation for private ones; or (2) engage in more car pooling (at present the average automobile occupancy is still less than two individuals per vehicle during the peak hours); or (3) shift their times of travel from the present peak to off-peak hours.

Previous Relevant Research. There have been several proposals for using peak-hour tolls for the purpose of reducing peak congestion on urban freeways and bridges, but none have been discovered so far which suggest specific toll rates for a particular facility and which treat the practical application of this principle.

Method of Study. The findings of current study by the Institute of Transportation and Traffic Engineering on Bay Bridge traffic carried out by R. Carll and W. Homburger will be used together with available data from past traffic surveys on the Bay Bridge. Results of three origin-destination studies of Bridge traffic during the past five years will also be examined. An attempt will be made to quantify certain variables (e.g., time and probability of accidents at different traffic volumes). An evaluative model will be constructed to arrive at the optimum toll structure. (TEK)

12. DETERMINANTS OF RESIDENTIAL CONSTRUCTION

Main Investigators: Sherman Maisel and Leo Grebler.

Status of Research and Publication: Manuscript completed and to be published in a series of working papers by the Commission on Money and Credit.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles, with grant from the Commission on Money and Credit.

Previous Digest report: None.

Research Problem. An investigation of existing knowledge of factors determining the volume of residential building, including verbal and econometric-statistical models. (LG)

13. URBAN RENEWAL IN EUROPE - ITS EMERGENCE AND POTENTIALS

Main Investigator: Leo Grebler.

Status of Research and Publication: European field tour completed. Preparation of manuscript in process.

Agency: Sabbatical leave project, University of California, Los Angeles. Field tour supported by Ford Foundation.

Previous Digest report: None.

Research Problem. To examine the existence and features of national urban renewal programs in European countries, the forces propelling these countries into such programs, and the emergence of local renewal efforts where no national programs exist. The study includes a comparative analysis for several European countries as well as a European-U.S. comparison. (LG)

14. EFFECTS OF INTRA-URBAN LIMITED ACCESS THOROUGHFARES ON COMMERCIAL LAND USES

Main Investigator: Robert C. Yost.

Status of Research and Publication: Doctoral dissertation to be completed at the end of 1962. Publication planned by Real Estate Research Program.

Agency: University of California, Graduate School of Business Administration, Los Angeles.

Previous Digest report: None.

Research Problem. Construction of a model and its testing through a case study of commercial land uses on Ventura Boulevard in Los Angeles before and after installation of a freeway paralleling the Boulevard. (LG)

15. ANALYSIS OF REAL ESTATE MARKET BEHAVIOR FROM MULTIPLE LISTING BUREAU DATA IN THE LOS ANGELES AREA

Main Investigators: Fred E. Case and Frank Mittelbach.

Status of Research and Publication: Data collection for the period 1950-1960 completed. Analysis projected for the remainder of 1962. Publication planned by the Real Estate Research Program.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles.

Previous Digest report: None.

Research Problem. Multiple listing bureaus of real-estate brokerage firms assemble a large volume of data needed for their operations that are useful for analysis of market developments. Among other things, the data include price, difference between asking and actual sales price, and time required for sale. These data will be analyzed in conjunction with other materials to trace market developments. Also, the usefulness of the statistics derived from multiple listing bureau operations will be appraised. (LG)

16. COMPARISON OF CHANGES IN HOUSE SALE PRICES WITH ASSESSED VALUES IN LOS ANGELES

Main Investigator: Robert C. William.

Status of Research and Publication: To be completed in July, 1962, and published by the Real Estate Research Program.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles.

Previous Digest report: None.

Research Problem. To examine the movement of prices for single-family houses in comparison with the movement of assessed values for the same houses. A small sample for which data extending over twenty years are available is used for the study. (LG)

17. PROSPECTUS FOR A STUDY OF THE ECONOMIC GROWTH AND STRUCTURE OF THE LOS ANGELES REGIONAL ECONOMY

Main Investigator: Leland S. Burns.

Status of Research and Publication: Report to be completed July, 1962.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles, with grant from the California Division of Highways.

Previous Digest report: None.

Research Problem. This is a preliminary investigation including an inventory of existing data and projections and a description and analysis of methods available for a final study. (LG)

18. THE VALUATION OF ACCESSIBILITY

Main Investigator: William C. Pendleton.

Status of Research and Publications: Doctoral dissertation, in progress.

Agency: University of Chicago, Department of Economics.

Previous Digest report: None.

Research Problem. To infer from sales prices of residential real estate the value buyers place on accessibility to the central business district. The study is designed to explore the usefulness of land value data in evaluating the benefits of transportation improvements, particularly urban highway improvements.

Previous Relevant Research. At least from the time of Von Thunen, students of urban economics have posited a rent gradient, with land rents and values declining with distance from the CBD. The nature of this rent function has been more clearly specified in the recent theoretical work of Richard Muth, William Alonso, and Lowden Wingo, and its relation to urban transportation systems has been made explicit. The present study is largely empirical, designed to isolate and measure the accessibility component of real estate values. In approach and objectives it resembles the recent work of Herbert Mohring at the Northwestern University Transportation Center.

Method of Study. The value data are a sample of sales of single-family residences from the Washington, D.C. metropolitan area. The sales took place between early 1960 and late 1961. Sales price will be the dependent variable in a multiple regression problem, and will be related to the major independent determinants of value. Considerable detail on structural characteristics is available and the following measures of accessibility will be used: the logarithm of linear distance to the CBD, travel time to the CBD, and indexes of accessibility to jobs and retail sales. Preliminary computations indicate that sufficient information is available to explain most of the variance in sales price and that consistent and significant relationships exist between prices and accessibility. (WCP)

19. A THEORY OF POPULATION DISTRIBUTION

Main Investigator: Arnold M. Faden.

Status of Research and Publication: Doctoral dissertation, in progress. Expected date of completion, spring, 1963.

Agency: Columbia University, Department of Economics, assisted by fellowship from Committee on Urban Economics, Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. To explain the size and spatial distribution of population agglomerations by means of location theory.

Previous Research. Summaries of the most important alleged regularities may be found in W. Isard, Location and Space Economy, Chapter 3, and W. Isard, et. al., Methods of Regional Analysis, Chapter 11. Much remains to be done in determining the range of validity and closeness of fit of these generalizations. W. Christaller postulated a well known hierarchy of cities, a city of a given rank performing central functions for surrounding cities of lower order. Why such a hierarchy should exist, and whether the ranks are any more than convenient fictions, remain open question despite much research by geographers (B.J.L. Berry, J.E. Brush, R.E. Dickinson, F.H.W. Green, A.E. Smailes, et. al.). M.J. Beckmann and E.M. Hoover observed that constant ratios of population size and number of cities between successive ranks implied a Paretoan distribution of city sizes. Unfortunately, this prediction breaks down for rural places, just where the central-place theory would appear most applicable (J.E. Brush, Geog. Rev., July, 1953). A different approach to the size-distribution is that of H.A. Simon, who derives the Paretoan distribution from a simple stochastic process. This model was not designed primarily for cities and has several weaknesses. In particular, it ignores migration, the major source of population redistribution.

Method of Study. The theory of agglomeration, which is the branch of location theory most relevant to the problem in hand, is to be developed from its present rudimentary state as follows. The sources of economies (or diseconomies) of scale divide into changes in density, in area, and in duration of an activity-complex. The distinctive features emerge at particular levels of aggregation of activities, areas and lengths of run. These economies can in many cases be given quantitative expression. For example, a fixed set-up cost model involves a linear (but not homogeneous) relation between inputs and outputs. Other activities appear on the evidence to be of the Cobb-Douglas type, costs being a (non-unit) power of output. Next, the interaction of several activities, each subject to economies of scale, can give rise to reinforcement, leading to higher-level economies much stronger than any of its individual components. Some effect of this sort may be required to explain the cumulative expansion of a great metropolis or an industrial region.

The fundamental active demographic processes - child-rearing, migration, and commuting - are to be treated on a par with industrial and transport processes; that is, the flow of resources out of or into them is to be determined as if they were governed by pecuniary motives. The justification for this "classical" approach lies in the selective process which brings about the same results in the long-run even in the absence of such motives (A.A. Alchian, G.S. Becker, D.B. Creamer, E.M. Hoover, C.M. Tiebout et. al.).

It is too early to estimate the degree to which this program can be carried out, and the degree of predictive power it will then possess. (AMF)

20. EFFECT OF NOISE CREATED BY AIRPORT AND AIRCRAFT OPERATIONS UPON SURROUNDING AREA

Main Investigators: Bernard A. Schroll, Maurice W. Roach, Jr., Bart Spano.

Status of Research and Publication: In process. Publication expected summer of 1962.

Agency: Detroit Metropolitan Area Regional Planning Commission, with grant-in-aid from Demonstration Program Branch, Urban Renewal Administration, U.S. Housing and Home Finance Agency, and local governments.

Previous Digest report: 8:1-11.

Research Problem. An investigation of the effects of noise levels created by aircraft and airport operations upon the surrounding area, with emphasis on the jet type of aircraft. The study will define the area affected, the land uses compatible with such operations, and develop alternate proposals for the development of the surrounding land. While the Detroit-Wayne County Metropolitan Airport will be used for the case study, techniques of study and basic principles will be developed which may be useful at the major jet airports of the country.

Previous Relevant Research. Tulsa Metropolitan Area Planning Commission, "Metropolitan Tulsa Airports and Their Relationship with Surrounding Land Uses", Tulsa, Oklahoma, 1960.

Method of Study. (1) Determination of the acoustical levels created by airport and aircraft operations; (2) determination of acoustical levels created by various land uses and classification of such use as to their compatibility with airport; (3) determination of area adversely affected; (4) determination of existing conditions relative to land uses; (5) development of proposed land uses for area affected, and any special zoning techniques needed to implement such proposals. (BAS)

21. COUNTY INCOME STUDY

Main Investigators: Scott Keyes, Wallace E. Reed, Felix C. Rodgers.

Status of Research and Publications: Estimates for 1950, 1954, 1956, 1958 and 1959 completed. Publication expected within two months.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of Illinois State Housing Board.

Previous Digest reports: 7:2-30; 8:2-22. (SK)

22. SURVEY OF URBAN AND REGIONAL RESEARCH AND EDUCATION IN AMERICAN UNIVERSITIES

Main Investigator: Scott Keyes.

Status of Research and Publications: Project to be started in May, 1962. Scheduled for completion spring, 1963.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. Summary of urban and regionally oriented research and training programs in American universities granting degrees at the doctoral level.

Previous Relevant Research. Similar survey organized for Resources for the Future, Inc., by Harvey Perloff in 1957 under title, Regional Studies at U.S. Universities: A Survey of Regionally Oriented Research and Graduate Education Activities. Present survey is intended to update and expand this earlier survey. (SK)

23. SPATIAL VARIABLES AND CBD SALES

Main Investigators: Ronald R. Boyce and Dilip K. Pal.

Status of Research and Publications: Research complete, publication planned.

Agency: University of Illinois, Bureau of Community Planning. (Basic data supplied by Sanborn Map Company, Pelham, New York.)

Previous Digest report: None.

Research Problem. During the past decade most American central business districts have declined in their proportion of metropolitan retail sales. Greater metropolitan population appears to have aided in the declining relative dominance of the CBD by allowing the threshold size for major retail aggregations to develop in outlying locations. Nevertheless, metropolitan population size alone, as related to the amount of sales in over eighty CBD's, accounts for only about half of CBD retail sales variation.

The location of the CBD with respect to the distribution of residential development, the configuration or shape of this purchasing power, and the distribution of income were postulated to be important spatial variables which might further explain CBD sales variation in any given sized metropolis.

Method of Study. First, the percentage of CBD retail sales was compared with SMA population in over eighty metropolises. Deviations of individual CBD's from this regression line were then ranked in order of deviancy from most deviant above the line to most deviant below the line.

The three spatial variables above were also then ranked. CBD centrality was measured in relation to the distribution of residential development, i.e., the more central any CBD, the higher its rank. The shape of purchasing power was ranked according to the degree of circularity of residential development, as well as to the degree of residential compactness, i.e., the more circular and compact the distribution of total purchasing power in any metropolis, the higher its rank. The distribution of income was ranked according to the degree of high income, (i.e., income over $10,000 annually) fragmentation and elongation, particularly in outlying locations, i.e., the more fragmented and elongated the distribution of income, the higher the rank. The ranking of all variables were then inter-correlated.

Major Findings. CBD centrality was found to be the most significant of the three spatial variables. The partial rank correlation coefficient for CBD centrality was 0.87. Purchasing power configuration, or shape, also proved to be important. The distribution of income, however, when the other two spatial variables were held constant, was found to be insignificant in explaining CBD sales deviations from the regression line. Undoubtedly, a better measure of income distribution is needed. (RRB)

24. CITY PLANNING AND LOCAL POLITICS

Main Investigator: Charles E. Patterson, Jr.

Status of Research and Publications: Preliminary report issued. Publication of bibliography planned. Field work for four case studies in line with recommendations now in progress. Expected completion date of case studies is October, 1962. Results will be presented in a doctoral dissertation.

Agency: University of Illinois, Bureau of Community Planning.

Previous Digest report: None.

Research Problem. To suggest what political science may have of value to offer to the study of city planning. Preliminary report considers defects of current literature on planning administration and the need to remedy these defects by developing a better sense of political awareness among members of the planning profession. Its thesis is that planning, as it is now being conducted by local governments in this country, is a political process.

Method of Study. The report reviews some of the approaches to the study of politics that might be adapted to the study of city planning. It proposes a series of case studies employing a pressure group analysis as a useful means of improving political awareness and sets forth some major relevant concepts that might be tested by such empirical research. Four small cities have been selected for exploratory studies of this kind. They are Arlington Heights, Clinton, Mattoon and Watseka, Illinois. Others may be undertaken later. (CEP)

25. DISCRETION AND CERTAINTY IN LAND USE CONTROLS: THE PROBLEM OF NON-EUCLIDEAN ZONING OF LARGER PARCELS

Main Investigator: William Doebele.

Status of Research and Publication: First draft completed.

Agency: Joint Center of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This paper deals with the history of conventional zoning concepts in the United States and the dilema posed by modern conditions of land development. It concentrates on the theoretical and practical considerations underlying the zoning movement, and the reception these received in the courts. The question of the amount of permissible discretion in zoning posed by recent cases involving large parcels is considered in some detail, as the central issue in the further development of zoning as a tool for the implementation of city planning. Judicial analysis of the issue of discretionary zoning powers has, to date, failed to cut to basic issues. The paper attempts to investigate with more precision the question of discretionary power in contemporary ordinances, and to indicate directions for future judicial treatment that will permit the orderly development of the zoning device while preserving equality under law. (JRS)

26. METROPOLITAN STRUCTURE AND THE REBUILDING OF CITIES

Main Investigator: Bernard Frieden.

Status of Research and Publication: First draft completed.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study investigates the economic feasibility of developing new housing in the "gray areas" of cities -- areas located between the central business district and suburban territory, characterized by obsolete housing and a declining population. Various features of metropolitan structure, such as the strength of the downtown core and the proximity of vacant land, influence the demand for new housing in the gray area. Development and operating costs for new housing in gray area locations reflect a number of other characteristics of the region: population pressures upon the old housing supply, the density of prior development, property tax levels, and the methods of cost adjustment prevailing in the local housing market. This study analyzes the effects of such metropolitan characteristics upon the economic advantages of gray area locations and alternate sites for new housing.

Method of Study. The New York, Los Angeles, and Hartford metropolitan regions have been chosen to exemplify contrasts in the salient metropolitan characteristics. Locational aspects of the market for new housing are investigated in each region. The results of these case studies are used to formulate a general set of requirements for attracting new private development to the gray areas of cities. Recent renewal policies in the three study regions are reviewed in the light of these requirements, and new strategies are suggested. (JRS)

27. THE FUTURE OF THE DOWNTOWN DEPARTMENT STORE

Main Investigator: George Stemlieb.

Status of Research and Publication: Doctoral dissertation to be submitted to Harvard Business School. Publication by Joint Center as a working paper scheduled for early 1962.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. The objectives of this work are: (1) to examine the relationship of the changing role of the centre city and the department store; (2) to furnish retailing management with an analytical approach with which to grasp the urban phenomena affecting their businessess; and (3) to help provide city planners and researchers with some understanding of the changing shape of downtown retailing.

The study attempts to combine the research of urban planners with the experience of major retailers in order to grasp the changing function of downtown retailing. Intensive case studies of Philadelphia, Pittsburgh and Boston are combined with a more generalized analysis. The work is most concerned with the effect of the downtown merchants' response to the changing urban environment as a feedback on his own situation.

In the final chapter an analytical approach is suggested to help downtown retailers define the shape of their environment together with an examination of the parameters which will govern future development. (JRS)

28. STATIC FRANCE AND DYNAMIC FRANCE

Main Investigator: Daniel Lerner.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study investigates the reasons underlying the differential rates of development between France A (dynamic) and France B (static). This classification has been hypothesized in recent years by leading French thinkers, who have sought to explain these differences in terms of the traditional "natural regions" of France. Professor Lerner believes that this order of explanation is no longer valid in contemporary France, where rapid communications, geographical mobility and industrial modernization have blurred the differences between traditional regions. Believing that these differences are "historical" (i.e., reflecting transitory conjunctures at a given time and place) rather than "natural" (i.e., based on unchanging physical and geographical properties), Professor Lerner has a two-fold objective: (1) to show that the assumption of "natural regions" fails to explain the actually observed differences; (2) to work out a hypothesis that will account more accurately for the differences that can be observed empirically in France today. (JRS)

29. CLASS AND MOBILITY IN A NINETEENTH CENTURY CITY: A STUDY OF MANUAL LABORERS

Main Investigator: Stephan Thernstrom.

Status of Research and Publication: In process. Doctoral dissertation to be submitted in the History of American Civilization program at Harvard University. Five of eight projected chapters are completed. A finished version of the study will be available in April, 1962.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study is an analysis of the social and economic position of the manual laborer in a nineteenth century New England community. Its primary theoretical objective is to clarify and apply the concept "social mobility" to a body of historical data; its major empirical aim is to measure the amount of social mobility experienced by members of a particular social group in a period of rapid economic and social change. The study differs from the usual "urban biography" in having an explicitly theoretical framwork, and in drawing quantitative conclusions about the relative "openness" of a community social structure. Newburyport, Massachusetts, was chosen as the setting for this case study, to permit a critical reappraisal of W. Lloyd Warner's "Yankee City" series.

30. LAW AND EQUAL OPPORTUNITY

Main Investigator: Leon Mayhew.

Status of Research and Publication: In process. Doctoral dissertation to be submitted to Department of Social Relations, Harvard University.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study examines the role of law in securing equal opportunity for the Boston Negro community. Massachusetts law prohibits discrimination in housing and employment. Interviews and case records are used to determine how elements of the Boston community have responded to this legislation. Industrial and commercial leadership, the Negro group and the law enforcement agency have all responded to the law and ways structured by their attitudes and interests and by ways realistic limitations. These responses and their interrelations constitute the law as a social institution.

Method of Study. Intensive examination is being made of a sample of two-hundred complaints brought to the Massachusetts Commission Against Discrimination and depth interviews are being conducted with employment directors of business firms, housing allocators, state officials, Negro leaders, Negro complainants and leaders of pressure groups. (JRS)

31. VARIATIONS IN DEMOGRAPHIC STRUCTURE WITHIN A METROPOLITAN AREA: KANSAS CITY

Main Investigator: Michael R. C. Coulson.

Status of Research and Publication: Two year project ending July, 1963. Now about one-third complete. Research will be incorporated in a doctoral dissertation and some parts may be published in article or monograph form.

Agency: University of Kansas, Department of Geography, in association with Community Studies, Inc., Kansas City.

Previous Digest report: None.

Research Problem. The development of groupings, either of people who wish to congregate, or who are forced to by lack of flexibility, is a generally recognized characteristic of all larger cities. Such tendencies towards segregation reduce the value of demographic totals for the city as a whole. These totals tell us something of the general character of the population, but nothing of the subtle variations within the area of the city. This project proposes to consider therefore, the variations in demographic structure within the Kansas City metropolitan area.

Method of Study. Starting with an area distribution of distinctive age and sex structures for sub-populations, hypotheses concerning the relationship of these structures and other factors, such as income, occupation, etc., will be tested to (1) "explain" distribution of the structures; (2) measure the degree of homogeneity; and (3) attempt to assess changes, 1950 to 1960, within the sub-population.

The scope of the study is the tracted area of Kansas City; the basic unit, the census tract. It is eventually hoped to assess the homogeneity of the tracts with data by enumeration district. The immediate concern is with published data from the U.S. Census of Population, 1960, and 1950. Attention has so far been focused on methods of expressing the age structure of the population by quantitative index numbers. From this point procedure will be by standard statistical techniques. (MRCC)

32. THE CITY BEAUTIFUL MOVEMENT IN KANSAS CITY, 1872-1914

Main Investigator: William H. Wilson.

Status of Research and Publications: Research completed, incorporated in a doctoral dissertation, University of Missouri, to be submitted in June, 1962. Part of the research is included in an article in the April, 1962, issue of the Missouri Historical Review.

Agency: University of Kansas City, History of Kansas City Research Project, under sponsorship of Community Studies, Inc.

Previous Digest report: None.

Research Problem. The research problem was to discover the origins of city planning in Kansas City, and examine the leaders of the planning movement: their assumptions, their individual roles, and the methods they used to achieve success.

Previous Relevant Research. Most previous writing on the subject has been done by two groups, general critics of architecture and civic design, and writers of survey histories of the city or biographies of locally prominent persons. Several general critics have condemned the national City Beautiful, or early planning, movement because its beauty was formal and derivative, it ignored real urban problems, and resulted in little construction. Local authors have unanimously credited one man, William Rockhill Nelson, founder of the Kansas City *Star*, with initiative and leadership in the drive to secure planning for Kansas City in the shape of a comprehensive park and boulevard system. George E. Kessler, the expert landscape architect who drew the plan, and others, have been relegated to secondary roles.

Method of Study. The research method was to examine local newspapers, park board records and reports, city council proceedings and documents, the personal and professional papers of George E. Kessler, and other sources, to establish the correct chronology of planning events and the relative importance of the principal personalities involved.

Major Findings. The general critics' condemnations of the City Beautiful movement do not apply to Kansas City. George E. Kessler's landscaping was naturalistic, not formalistic, and he gave attention to problems of slum clearance and recreational facilities. The park and boulevard system not only was built, it was much more extensive than the one originally planned. The critics have concentrated on planners and have ignored the complex legal questions that demanded solution before the planners could build. Local historians have overdramatized the leadership role of Editor Nelson and his newspaper. Other reformers and Kessler, the landscape architect, provided leadership and skills that Nelson had neither the training nor the temprament to offer. Nelson did not lead these men, instead he frequently quarreled with them. Yet, in his proper function of publicist and opinion-maker, he performed an invaluable service to the success of planning.

33. GROWTH AND FLUCTUATIONS IN THE ECONOMY OF LOUISIANA, 1947-1959

Main Investigator: Stephen L. McDonald.

Status of Research and Publications: Completed and published, July, 1961, as Louisiana Business Bulletin, Vol. 23, No. 1. (167 pp. ill.)

Agency: Louisiana State University, College of Business Administration. (Individual faculty research, with assistance from Division of Research. Author has since become Professor of Economics at University of Texas.)

Previous *Digest* report: None.

Research Problem. A comparison of patterns of growth and fluctuations in economic activity as between the State of Louisiana and the United States as a whole.

Previous Relevant Research. Selected examples: Kidner, F.L., California Business Cycles, Berkeley, U. of Calif. Press, 1946; Simpson, P.B., Regional Aspects of Business Cycles and Special Studies of the Pacific Northwest, Eugene, Univ. of Oregon Press, 1943; Neff, Phillip, "Interregional Cyclical Differentials: Causes, Measurement and Significance", Papers and Proceedings, American Econ. Assn., May, 1949; Vining, Rutledge, "The Region as a Concept in Business Cycle Analysis", Econometrica, Jan., 1946.

Hypothesis. That Louisiana, as a rapidly industrializing region during the study period, should exhibit distinctive patterns of growth and fluctuations in economic activity; that the State's experience could be interpreted by means of an adaptation of the Schumpeterian concepts of major (localized) innovation and long cycles upon which smaller cycles are superimposed.

Method of Study. Except for statement of analytical framework, purely statistical comparison using adaptation of devices of the National Bureau of Economic Research.

Major Findings. Sharp structural changes occurred in the economy of Louisiana in connection with its rapid development during the period, including regional shifts in the concentration of economic activity and a tendency toward equalization of incomes among parishes. These changes reflected themselves in patterns of economic fluctuations that differed significantly from national patterns in specific, not highly aggregative, series. Differences were much less apparent in the highly aggregative series. There is some evidence that Louisiana experienced a long cycle during the study period, the recessions of 1948-49 and 1953-54 occurring on the up-phase and being differentially mild, and the recession of 1957-58 occurring on the down-phase and being differentially severe. The Schumpeterian concepts seem to help interpret the State's differential experience during the study period. (SLM)

34. QUANTITATIVE INVESTIGATION OF ASPECTS OF THE ECONOMICS OF SUPPLY AND DEMAND IN THE PETROLEUM INDUSTRY

Main Investigator: Franklin M. Fisher.

Status of Research and Publications: One by-product of project on cost of automobile model changes will be published as article in Journal of Political Economy. Section on analysis of drilling costs now nearing completion; other costs in progress.

Agency: Massachusetts Institute of Technology, sponsored by Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The general aim is to investigate the determinants of the supply of exploratory effort in the U.S. petroleum industry as well as the determinants of petroleum demand. Within this framework effort is currently being directed at the efforts of depth and technology as drilling costs and the demand for gasoline.

Method of Study. The investigation is quantitative and uses econometric models.

Major Findings: (1) Technological change has not appreciably reduced the rate of increase of drilling costs with depth (although it has reduced the level of such costs. Drilling costs tend to double in under 3,000 feet. (2) A series of gasoline consumption per mile has been constructed for all model automobiles built since 1950. Gasoline economy declined on the average from 16.4 miles per gallon in 1949 to 14.3 in 1959 before the introduction of the compacts and rose to 15.3 in 1960-61. Had cars with 1949 horsepowers and transmissions been built throughout, economy would have improved over the same period to better than 18 miles per gallon. (FMF)

35. ECONOMIC ADJUSTMENTS TO DISARMAMENT

Main Investigators: Kenneth E. Boulding, Emile Benoit and others.

Status of Research and Publications: Basic research is now completed, consultant reports are almost all in, and the project continues on a curtailed basis to complete work on two books. The first book being edited by Kenneth Boulding and Emile Benoit, probably to be entitled "Economic Adjustments to Disarmament", will comprise an introductory essay on theory by Boulding, a general survey of problem and method by Benoit, and will have chapters on various of the problem prepared by consultants. The second book, to be written by Benoit, which is planned to be of a more popular character and will survey all the main aspects of the economic impact and adjustment problem. Much of the research has already been used in a background memorandum to the United Nations Secretariat and in a panel report (Emile Benoit, Chairman) published by the U.S. Arms Control and Disarmament Agency in January, 1962, entitled "Economic Impacts of Disarmament."

Agency: University of Michigan, Center for Research in Conflict Resolution, with assistance of grants from Carnegie Corporation, and Ford and Reynolds Foundations. (Central office of project is located at 475 Riverside Drive, New York 27, N. Y.)

Previous Digest report: 8:1-35. (EB)

36. AN APPROACH TO THE STUDY OF NATURAL RESOURCES POLICY: THE MICHIGAN CONSERVATION COMMISSION'S DECISION ON THE PORCUPINE MOUNTAINS CONTROVERSY

Main Investigator: Robert H. Twiss.

Status of Research and Publications: Doctoral dissertation, to be completed in June, 1962.

Agency: University of Michigan, School of Natural Resources, Conservation Department, under fellowship from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The primary purpose is to supplement and adapt the case method of public administration to research on public policy issues in the natural resources field. Modification of the case study approach consisted of delineating a class of problems to which research would apply, and building a paradigm and model of rational problem solving within this class. The class and model are built primarily upon selected theories and definitions of decision making and rationality, but also encompass principles of political science, public administration, and natural resources management.

A study is made of the "Porcupine Mountains Controversy" which concerned the Michigan Conservation Commission's problem in 1958-59 as to whether or not to permit copper exploration and mining in the wilderness Porcupine Mountains State Park. The Commission's deliberation and decision was accompanied by a widespread public controversy between wilderness preservation groups from urbanized Lower Michigan, and groups, mainly from the economically depressed Upper Penninsula of Michigan (in which the park lies), which favored minerals development.

Method of Study. This case is first described on the basis of interviews and literature research in common sense terms, and then is analyzed in terms of the previously developed model and its supporting theoretical material.

Major Findings. Research is not completed, but recommendations and conclusions made thus far include: (1) a consideration of incremental changes in the Michigan Conservation Commission's decision procedures that would clarify decision rules and criteria, and increase the availability and validity of information needed for rational decisions; (2) suggestions for preventing the escalation of conflict among interest groups; (3) a discussion of some pre-conditions for increasing the rationality of problem solving in the class of problems; (4) a subjective analysis of the research approach (i.e., the process of building a class of problems andmodel prior to the case study; and (5) suggestions for modifying the specific research approach used in study of the Porcupine Mountains controversy for use in problems areas of emerging significance. (RHT)

37. LOCAL GOVERNMENT DEBT IN MICHIGAN

Main Investigator: A. L. Edwards.

Status of Research and Publications: Completed and published as "A Study of Local Government Debt in Michigan", Technical Study No. 2, 1961. ($1.00)

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: 7:1-16.

Research Problem. The increases in outstanding dept by Michigan local governments--in counties, cities, townships, and schools districts --suggests the need for an objective look at this area of local government finance. The two general objectives are, first, to determine the patterns of differences in outstanding debt within and between local government classes, and, second, to examine the relationship between outstanding debt and economic resources.

Major Findings. (1) The debt of local governments in Michigan is not out of line with that of local governments in other states. When the net long-term debt of both state and local governments are considered, Michigan ranks 24th among the states in per capita long-term debt; (2) the increasing trend of Michigan local governments to employ revenue bonds is likely to continue; (3) with increasing urbanization, demands for public services and governmental functions increase. These are often costly and usually the only way they can be provided is to charge them against the future through some form of debt. In this regard, the state's Municipal Finance Commission has a vital role in maintaining sound administration of local indebtedness; (4) to determine with any precision the amount of debt which a local government can safely incur is almost impossible. The amount of tax-supported debt is of less concern than (a) the amoung of such debt that is permitted to accumulate, (b) the purposes for which borrowing is undertaken, and (c) the forthrightness of plans for debt retirement. (DWO)

38. FOUR-CITIES STUDY OF LOCAL POLITICAL PROCESSES

Main Investigators: Oliver Williams and C. R. Adrian.

Status of Research: Completed. To be published as a monograph by the University of Pennsylvania.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: 7:1-20.

39. LOCAL INCOME TAXES AS A SOURCE OF REVENUE FOR MICHIGAN COMMUNITIES

Main Investigator: Milton C. Taylor.

Status of Research and Publications: Completed and published as General Bulletin No. 6, 1961. ($.50)

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: 8:1-28.

Major Findings. Although local income taxes are not necessarily ideal according to the criteria of equity, convenience, neutrality, and the promotion of economic growth, they are effective producers of revenue, and thus are attractive to hard-pressed local governments. The rapidly increasing indebtedness of local governmental units and the weaknesses and difficulties of general property taxes as the main sources of revenue for local government, exert pressure toward the enactment of local income taxes. At present, local income taxation is confined to Pennsylvania, Ohio, Kentucky, and Missouri, but municipalities in other states, including Michigan, are seriously examining the possibility. In Michigan, the cities of Detroit and Saginaw have come close to adopting such taxes. Among the more important issues that are raised are: (a) Should property income be excluded from the tax base? (b) Should a flat or progressive rate be used? (c) Should personal exemptions be provided? (d) Should capital gains and rent be taxed? (e) Should corporate income be taxed? (f) Should local income taxes provide reciprocal deductibility? (g) Should the tax be levied either as a percentage of the federal tax or of the federal tax base? (h) What is the appropriate geographic area for the application of local income taxes? (i) How can double taxation be avoided? (DWO)

40. ORGANIZING LEADERSHIP FOR COMMUNITY DEVELOPMENT PROJECTS

Main Investigator: E. Alchin.

Status of Research and Publications: In process.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: None.

Research Problem. This is a publication intended to provide local civic leaders with insights, generalization, and ideas concerning the problems and means for organizing a leader association, based on field experiences in community development projects. (EA)

41. UNIVERSITY EXTENSION EDUCATION IN AN URBAN SETTING

Main Investigator: E. Alchin.

Status of Research and Publications: In process.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: None.

Research Problem. A series of essays which examines the role of the land-grant university historically and contemporary problems in relating the University body of knowledge to the needs of society. Emphasis is given to the role of university extension education as a means to achieve a closer tie between the university and the general public.

42. PROPERTY TAX ASSESSMENT IN LANSING, MICHIGAN

Main Investigators: Milton C. Taylor, James McCarley.

Status of Research and Publications: Data collected, preliminary analysis underway. Publication indefinite.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: None.

Research Problem. This study analyses the assessment-sales ratios of all properties sold in Lansing, Michigan, through real estate offices during 1961. These ratios will be analyzed with respect to the value of the property, location, usage, and age of improvements. (MCT)

43. AGRICULTURAL ECONOMY OF THE UPPER MIDWEST REGION

Main Investigators: Rex W. Cox and Arvid C. Knudtson.

Status of Research and Publications: In process. Preliminary report on first phase of project entitled "Upper Midwest Agriculture: Structure and Problems" issued in January, 1962, as Study Paper No. 3.

Agency: Upper Midwest Research and Development Council and University of Minnesota, under sponsorship of Ford Foundation.

Previous Digest report: 8:2-53. (JMH)

44. URBANIZATION IN THE UPPER MIDWEST REGION

Main Investigators: John R. Borchert and others.

Status of Research and Publications: In process.

Agency: Upper Midwest Research and Development Council and University of Minnesota, under sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. To describe in detail where, how much, and when cities and villages have gorwn or declined; to explain why; to describe the probable pattern of urban population distribution which is evolving in the region; to consider the implications of the pattern and alternative lines of development which could be promoted and discouraged. (JRB)

45. PLANNING FOR FAST GROWTH

Main Investigators: John R. Borchert and others.

Status of Research and Publications: In process.

Agency: Upper Midwest Research and Development Council and University of Minnesota, under a sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. Development of a program of comprehensive planning to cope with very fast growth in urban areas.

Method of Study. Case studies, including Billings, Fargo-Moorhead, Grand Forks, Great Falls, Minto, Missoula, Rapid City, St. Cloud, and Souix Falls. Analysis and mapping of annual growth during post-war period. Collection of data concerning municipal capital expenditures, physical expansion and land use changes in the community, as well as all available information on formal planning in community. Follow-up interviews in depth to evaluate role of various agents in the planning process during the fast growth period, including builders, developers, officials of financial institutions and public officials. (JRB)

46. URBAN RENEWAL IN SMALL CITIES IN THE UPPER MIDWEST REGION

Main Investigator: John R. Borchert and others.

Status of Research and Publications: In process.

Agency: Upper Midwest Research and Development Council and University of Minnesota and North Dakota State University, under sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. To identify factors causing deterioration in small and medium-sized communities, evaluate existing remedial machinery, and search for additional concepts and approaches to the problem.

Method of Study. Case studies of twelve small cities in Minnesota and one in North Dakota which have undergone rapid change in size, highway access or function, or are either stagnant or declining in population. Places selected represent a wide variety of locations, physical sites and sizes. Identification of areas of deterioration and dilapidation. Interviews with key officials, business and professional people in the community to determine trends in size and condition of blighted areas, causes, attitudes toward them, interest in remedial action, basis for such action, degree of local knowledge of existing programs elsewhere, and - where available - proposals for local remedial action. (JRB)

47. AN ANALYSIS OF THE INDUSTRIAL COMPOSITION OF METROPOLITAN AREAS

Main Investigator: John C. Murdock.

Status of Research and Publications: Conceptual foundation established, theoretical framework developed, and about half of empirical work completed. Publication in form of monograph anticipated toward end of 1962.

Agency: University of Missouri, Department of Economics, under sponsorship of Community Studies, Inc.

Previous Digest report: None.

Research Problem. The analysis of the industrial composition of metropolitan areas was undertaken in an effort to develop a technique of analysis of the metropolitan economies which would permit the replacement of techniques borrowed from the analysis of national economies and which would permit sharper focus on the peculiarities of local economies.

Hypotheses. The research is to test the following hypotheses: that there are significant differences in growth and other performance characteristics among different types of metropolitan areas. Metropolitan classification is based upon industrial structure. The structural characteristics are shown to have a sufficient level of stability that they can serve as a convenient guideline by which to set limits on the anticipated values the performance characteristics a particular local economy may take. Moreover, the structural classification directs analytical attention to a group of strategic elements in the local economy upon which further work may be concentrated. The object of this research is, therefore, to establish a conceptual basis for the metropolitan economy which reflects variables which are of substantial importance to the local economy but which are typically given little attention in the analysis of the economy of the nation as a whole and, secondly, to measure the impact of these variables on metropolitan areas.

Previous empirical research has established that there is a relation between the industrial structure of the local economy and its size as well as its geographic location. These go only a very short way toward answering why such relations exist. In seeking a partial answer to this and other questions, this analysis turns to the dominant sector of the local economy and how that industrial sector may affect the other parts of the local economy by way of a variety of demand and supply influences.

Method of Study. The approach of this research is to show there is a significant correlation between the type or nature of the dominant sector of the local economy and the performance of the local economy as a whole. The technique used to establish verification of this hypothesis is an analysis of the economic characteristics of the population of the Standard Metropolitan Statistical Areas above 250,000 population in the 1950 and 1960 Censuses as against certain measures of performance.

Major Findings. Findings to this point have established that previous generalizations concerning the association between growth rate and other characteristics of metropolitan areas for all metropolitan areas do not hold for at least some of the sub-groups as defined by dominant sectors. This is enough to indicate that the analysis of the sub-groups is likely to prove of some value in refining the analysis of metropolitan areas. (JCM)

48. STATE ECONOMIC PROJECTIONS

Main Investigator: Sidney Sonenblum.

Status of Research and Publications: Preliminary estimates of projections to 1976 of each state's and multi-state region's employment, population, labor force and income have been completed. Two mimeographed reports, for limited circulation, have been published. The first, "Economic Projections by States For The Years 1976 and 2000", is essentially a statistical compilation of past and projected data for the indicated economic and demographic variables for each state. No copies of this report are available. However, the Outdoor Recreation Resources Review Commission will publish this report, along with others, in a Government Printing Office publication later in the year. The second report, "Regional Projections to 1976", is a description of past and projected trends for eight multi-state regions, including a 60 page statistical appendix. Some copies of this report are still available upon request.

Agency: National Planning Association.

Previous Digest report: 8:2-69. (SS)

49. INCOME AND EMPLOYMENT IN NEW MEXICO, 1949-1959

Main Investigators: Ralph L. Edgel and Vicente T. Ximenes.

Status of Research and Publications: Published in New Mexico Studies in Business and Economics No. 8, 1961.

Agency: The University of New Mexico, Bureau of Business Research.

Previous Digest report: None.

Research Problem. Development of estimates of total employment and personal income in New Mexico counties during the 1949-1959 period. Analysis of the forces that have contributed to the growth of employment and income in New Mexico and the effects of changing income and employment upon the overall economic structure of particular counties during this period. Development of methods for estimating county income and employment on an annual basis.

Previous Relevant Research. Estimates of income, by type and industrial source, earned in New Mexico counties for the years 1954, 1955, 1956, and 1957.

Hypotheses. The factors that have contributed most to New Mexico's rapid growth during the postwar period can be isolated, and their effects upon the total economic system can be measured by an analysis of the changing industrial structure of employment and income in New Mexico.

Method of Study. Personal income payments to individuals have been estimated within the conceptual framework established by the National Income Division of the U.S. Department of Commerce. Primary sources have been utilized for estimating wage and salary payments -- by industry and by county -- and transfer payments. Ratio analysis, based upon state factors, has been employed to allocate Department of Commerce estimates of proprietor and property income.

Major Findings. (1) From 1949 to 1959 nine of the state's 32 counties experienced exceptional growth, seven counties were stable, and 16 declined. Rapid growth of federal government and mining employment produced the economic expansion in the nine counties and the general growth of the entire state. The rate of gain in employment substantially exceeded the rate of gain in population in the growth counties; (2) per capita incomes in the growth counties topped those of all other counties either in size or in rate of growth, or both, whereas those in the 16 declining counties were below those of the other 16 either in size or in rate of growth or both; (3) either the federal government (including the military) or mining (in the nature of oil and gas or uranium activities) was the leading source of wages and salaries in all the growth counties. In the decline counties federal activities were not significant, and in only one county was mining significant; (4) in all declining counties state and local government was either the first or second most important source of wage and salary income; (5) in all the growth counties wage and salary payments accounted for two-thirds or more of total personal income, whereas they accounted for less than or a little more than one-half in the declining counties; (6) among the growth counties agriculture is not a significant source of income. In two of the stable counties and in ten of the declining counties agriculture accounts for at least one fifth of total income; (7) the income of non-agricultural proprietors in the growth counties has grown at a much greater rate than in the other counties; (8) the growth counties have all experienced rapid growth of urban population, whereas the declining counties have either no urban centers, or such centers have declined in size. (AB)

50. NEW MEXICO SINCE STATEHOOD

Main Investigator: Ralph L. Edgel.

Status of Research and Publications: In process.

Agency: University of New Mexico Bureau of Business Research.

Previous Digest report: None.

Research Problem. An appraisal of the economic development of New Mexico since 1912 (year of statehood) with emphasis on changes in employment, income, and production. Particular attention will be given to (1) identifying the basic and secondary sectors of the economy, (2) the changing relationships between the sectors and among industries, and (3) their characteristics at various stages of development. The "multiplier effects" of changes in basic employment will be examined, and an attempt will be made to develop specific industry employment multipliers. The changing character of resource utilization will be analyzed so that we can identify the effects that such changes have upon the entire economic structure. (AB)

51. ESTIMATES OF WATER SUPPLY AND DEMAND FOR THE UNITED STATES

Main Investigator: Nathaniel Wollman.

Status of Research and Publications: Preliminary report published as Committee Print #32 of the Senate Select Committee on National Water Resources. Final report to be published in book form.

Agency: University of New Mexico, Department of Economics, financed by a grant from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The United States is divided into 22 water resource regions. Expected use of water in each region is based upon projections of population, agriculture, mining, steam electric power, manufacturing, soil and moisture conservation, fishing and wildlife habitat for 1980 and 2000. Three alternative rates of growth are used. Requirements for waste dilution at various levels of waste treatment have been estimated. Water requirements in the form of evaporation and transpiration losses plus waste dilution flows are estimated for each region and compared with present low flows. Amounts of required storage are estimated and alternative combinations of treatment and flow are constructed. (NW)

52. INDUSTRIAL DEVELOPMENT TRENDS AND ECONOMIC POTENTIAL: URBAN GROWTH DYNAMICS IN A REGIONAL CLUSTER OF CITIES

Main Investigator: Lowell D. Ashby.

Status of Research and Publications: In press (John Wiley and Sons, Inc., New York).

Agency: University of North Carolina, Institute for Research in Social Science, Urban Studies Program.

Previous Digest report: None.

Research Problem. The principal empirical problem undertaken was the preparation of employment estimates by major industry division (nine divisions) for each of the 146 counties in North Carolina and South Carolina (average of twelve calendar months basis) for each of the years 1947 through 1957. The principal analytical problem was to find the significance of present industrial commitments in the Piedmont Industrial Crescent (sixteen contiguous counties in North Caroline and South Carolina) for economic development potential.

Previous Relevant Research. The sponsorship by the Institute for Research in Social Science of urban studies constitutes an enrichment of an already long regional research tradition on this campus. Although its appropriateness had long been recognized by Rupert Vance and others, no previous detailed study of the Piedmont Industrial Crescent had been undertaken. The study described here is but one of several coming from different disciplines and unified by the urban theme. Also the techniques used by the author resemble those used in his The North Carolina Economy which is abstracted below.

Hypotheses. More or less common to all of the interdisciplinary efforts in the Urban Studies Program was the consideration of four central components: (1) urban development, considered as a dependent variable, (2) control processes, considered as "intervening" independent variables, (3) behaviour patterns in the urban environment, and (4) values and value systems of individuals and groups. The values and value systems are conceived as impinging upon urban development by way of behaviour patterns which are subject to control processes. The total process is dynamic in that urban development is influenced by the value systems of previous periods and in turn affects currently held values.

Underlying the specific research here considered is the assumption that the industrial attributes of a defined geographical area are properly studied as a weighted average of nationally defined industrial characteristics. It is also assumed that parallel study of mutually exclusive regions within a national context adds to depth of focus on regional characteristics.

Method of Study. The basic method was empirical. However, many analytical techniques were applied to the data developed. Among these were simple tabular classification and comparison, analysis of per capita income growth rates in terms of the growth rates in population and total income, construction of national indices of industrial stability, growth and productivity by industry and the expression of the region's industrial structure as a convex combination of the national characteristics of its component industries. Also used was the analysis of employment shifts into competitive and compositional components and the portrayal of these results in terms of two dimensional vectors which logically relate the several regions.

Major Findings. The findings lead to the anticipation during the 1957-1967 decade of a Piedmont Industrial Crescent area enjoying an employment expansion rate greater than that of the nation but surrounded by a matrix of counties expanding at less than the national rate. The Crescent counties are viewed as a potentially strong migratory terminus. The realized attributes of growth, productivity and stability must depend upon the nature of the near term new industrial commitments. (LDA)

53. THE NORTH CAROLINA ECONOMY

Main Investigator: Lowell D. Ashby.

Status of Research and Publications: Published as Research Paper 7, viii, 305, School of Business Administration, University of North Carolina, Chapel Hill, N.C., March, 1961. Published as a limited edition, now out of print, to be updated for a more widely circulated edition as soon as possible.

Agency: University of North Carolina, School of Business Administration, in cooperation with North Carolina Employment Security Commission, Bureau of Employment Security, and Bureau of Labor Statistics of the United States Department of Labor.

Previous *Digest* report: None.

Research Problem. The empirical objective of the study was to organize relevant information on the quantitative aspects of labor force and employment structure in order to enhance self knowledge concerning the state's position. This necessarily involved an evaluation of diverse information sources and the specification of blank areas in the data matrix. The analytical objective was to find the significance of present industrial commitments in terms of potentials for employment growth, stability and productivity.

Previous Relevant Research. The University of North Carolina at Chapel Hill has a long and productive experience in the field of regional research. Much of this work has been done by faculty members from various disciplines who have held research appointments in the Institute for Research in Social Science. The recent sponsorship by the Institute of a vigorous Urban Studies Program has, in effect, reinforced the interest in regional studies.

Hypotheses. While many hypotheses are present either explicitly or implicitly, there is one which is over-riding and which affects the organization of the study. This hypothesis is that a desirable way to examine the employment structure of a state (or, more generally a region) is against the background of parallel studies of the surrounding region and the nation. Admittedly, this hypothesis is not one which is either accepted or rejected at a specific point in the study. To that extent it is rationale as much as it is hypothesis. A consequence, however, is that the analysis in the study proceeds in most respects on a national, regional (13 Southern states) and state basis simultaneously.

Method of Study. The basic method is empirical. To the basic data, however, are applied many analytical techniques. Among these are simple tabular classification and comparison, analysis of migration rates among rural farm, rural non-farm and urban areas (using national survival rates for age, sex and race), historical industry studies of major industrial components, construction of national indices of industrial employment stability, growth and productivity, formulation of configurations of industrial attributes as criteria of choice in industry selection, analysis of employment shifts into (following Edgar S. Dunn's usage) competitive and compositional components and numerous others.

Major Findings. North Carolina is heavily committed to industries of slow growth, low productivity and acceptable stability. In some degree this pattern in self perpetuating, though it is fluid at the "growing edge." Consequently, numerous current developments in new directions have potential for vast eventual change. (LDA)

54. A THEORY OF THE SUBURBANIZATION OF MANUFACTURING ACTIVITY

Main Investigator: George W. Bleile.

Status of Research and Publications: Doctoral dissertation, scheduled for completion in 1962.

Agency: Northwestern University, Transportation Center, supported by fellowship from Committee on Urban Economies.

Previous Digest report: None.

Research Problem. The accelerated development of urban areas in the past decade has sharpened our awareness of the need for a better understanding of the forces shaping economic growth and spatial change in metropolitan areas. The focus of the research reported here is an investigation of a particular type of investment decision, namely, the decision to relocate manufacturing plants from one part of a metropolitan area to another.

Previous Relevant Research. Other investigators of the cause and extent of the suburbanization of manufacturing activities have used Census of Manufacturers data for statistical studies based on a cross section of SMSA's. These studies are hampered by the lack of sub-area detail forced upon them by the data which is published for only the central city and the suburban ring of each SMSA. The work of Kitagawa and Bogue, Suburbanization of Manufacturing Activity Within Standard Metropolitan Areas (1955) is an example of this type research. Another approach is a case study of firms that have moved. Greenhut in Plant Location in Theory and Practice (1956) uses the case study method to illustrate the concepts developed in his book. Generally only a small number of firms can be analyzed and the data gathered are often not amenable to statistical inference. Nevertheless, these studies as well as the purely theoretical research of Moses, Alonzo, and Wingo form the background of the present research.

Method of Study. This study attempts to develop a micro-economic theory of production and location that, given the profit maximization behavioral assumption, will yield locational predictions for given changes in the metropolitan factor price structure. Major stress is on the firm's response to changes in the price of labor and in the price of space located at given places in the urban area. Also considered is the locational impact of dynamic changes such as technological changes, product innovations, and growth of demand.

The empirical portion of the study makes use of data for about 1,200 plants that have relocated within the Chicago area since 1950. A variety of information about each plant is available including exact location before and after moving, employment, industrial affiliation, whether the new plant was newly constructed or a leased or purchased facility. In addition, a sample of these firms is being surveyed to gather data on factory space utilization, shifts in production techniques, product lines, transportation modes, labor requirements, and markets. The empirical data will be used to investigate several hypotheses suggested by the theoretical work.

Hypotheses. Some of the empirical hypotheses suggested include the following ones: plants that relocate use more space per employee than they did at their old location and more than similar plants that have not relocated; plants that undertake a change in product line or production technique are more likely to relocate than are plants that do not; plants that are users of large amounts of unskilled labor are less likely to move to far suburban areas than are other plants.

Findings to Date. A general descriptive write-up of the patterns of relocation in the Chicago area has been published by the author and Leon N. Moses, "Transportation and the Spatial Distribution of Economic Activity", Highway Research Bulletin #311, (1962). (GWB)

55. ECONOMIC DEVELOPMENT IN EASTERN OKLAHOMA UNTIL 1950

Main Investigator: E. J. R. Booth.

Status of Research and Publications: Doctoral dissertation, submitted to Vanderbilt University. Available Ph.D. dissertation abstracts, October, 1961, University Microfilm No. 61-3593. Financial assistance from United States Department of Agriculture.

Agency: Oklahoma State University, Department of Agricultural Economics.

Previous Digest report: None.

Research Problem. The object of the study was to gain an understanding of the differing conditions of economic progress within an area that shows little conformity, in its history or in its present status, to any other underdeveloped area of the United States.

Previous Relevant Research. Agricultural Adjustment and Farm Labor Underemployment in Eastern Oklahoma, 1910-1950, Oklahoma State Agricultural Experiment Station Bulletin No. T-91, May, 1961.

Method of Study. Hypothetical explanations of differential economic progress within an area of twenty-four counties were tested by a variety of statistical techniques over the years 1910-1950. Pre-statehood history was searched for possible determinants or future economic growth of deterioration.

Major Findings. Disparity in levels and rates of economic development between regions of a growing economy was found to persist over long periods of time. Eastern Oklahoma's development was achieved mainly through outmigration rather than through growth in real income.

Persistent low income to farmers has masked an immense amount of agricultural adjustment from 1910 to 1950. Cotton and corn cropping was replaced by livestock farming, farm capital stocks increased at rates equal to more prosperous regions, tenancy dropped from three-quarters to a third, farm sizes doubled and the farm work-force declined by more than one-half. After this adjustment, very often by inefficient paths, over one-half of the farm labor force was still underemployed.

Local industrial development in Eastern Oklahoma was uneven, meager, and of an industrial complex unlikely to sustain future growth. Significant industrialization in a few centers had exerted beneficial influence on farm factor and product markets but had had no effect on average farm incomes as other studies have found.

The pattern of settlement in Eastern Oklahoma was found to have provided the major barriers to development net yet overcome. Small farm sizes, high rates of tenancy, low capitalization, and inadequate schooling, which were among the symptoms of a rapid and recent settlement, were found to exert a persistent significant influence on economic welfare and progress in the area. Industrialization and agricultural adjustment have been too little and too late to overcome the barriers. (EJRB)

56. SMALL AREA EMPLOYMENT ESTIMATION IN THE PHILADELPHIA AREA

Main Investigator: Elizabeth P. Beutermann.

Status of Research and Publications: Final stage of data processing. Data should be available in final form by May 1.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. To estimate the number of employees, 1959-60, by three-digit SIC groups, by small areas (grid squares, zones, districts). Employment distribution by place of work, which is basic to the detailed analysis of location of all economic activity and fundamental to desired interaction, will be utilized as an input to the Regional Growth Model.

Method of Study. Pennsylvania and New Jersey Bureaus of Employment Security provided data files of the number of reporting cards sent to employers based on numbers of covered employees at earlier dates. Additions, deletions, and corrections (including distribution of employees of multiple establishment firms to work sites) were made to the IBM deck based on PJ's Regional Economic Survey covering 25 per cent of the Study Area Employment. Further additions were made, by establishment, for non-covered employment and for out-of-state firms not reporting locally. Employment of all unadjusted establishments was then adjusted by ratio methods within each SIC, subject to county control totals based on county business pattern reports, inflated for non-covered and self-employed persons. (EPD)

57. LAND USE CHANGES IN THE PHILADELPHIA AREA

Main Investigator: Daniel R. Fredland.

Status of Research and Publications: In process.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. The problem is to ascertain and analyze changes in land use within the urbanized area contained by the cordon line of PJ that occurred between 1945 and 1960. The latter date was the date of the major PJ data collection effort. The information on development change will be used to answer such questions as: (1) At various types of location, which uses tend to undergo development or redevelopment (public or private), and what influence does the intensity of earlier use have on resistance to change? (2) What is the location pattern of new urban development by type and density? (3) What were the previous uses of the sites of selected types of high intensity development such as apartments? Answers to these questions are of direct usefulness in estimating the maximum potential land supply for both redevelopment and new development for different uses. The data can also be used to reconstruct 1945 land use (ignoring changes in occupancy) to aid in testing PJ's land use projection models.

Method of Study. The basic procedure was to compare PJ's 1959 air photos and 1960 land use data with air photos made in or around 1945. Whether or not a change in land use or development that can be identified from the air has occurred, and the type of change -- e.g., new development, redevelopment, etc. -- was recorded for every 1960 land use unit. In cases of change the previous use was recorded, along with estimates of previous floor space, dwelling units, and number of structures. (DRF)

58. TRIP DISTRIBUTION IN THE PHILADELPHIA AREA

Main Investigator: Anthony R. Tomazinis.

Status of Research and Publications: In process. Completion expected by end of 1962. Possible publication in form of "PJ Paper" as well as incorporation in more formal technical project reports.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. To determine the fashion in which interaction of urban activities - as expressed by the resulting trip interchange - takes place. Analysis is based on theory of probability and utilizes data from 1947 and 1960 origin and destination surveys of area. (ART)

59. TRIP GENERATION IN THE PHILADELPHIA AREA

Main Investigator: Anthony R. Tomazinis.

Status of Research and Publications: In process.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. A complete analysis of trip generation rates associated with urban activities, utilizing extensive simple and multiple regression analysis techniques. Rates will be separated by purpose to and from, mode of travel, hour of trip-making, type of driver, type of land use at origin and destination, length of trip, areal classification of the areas of origin and destination, type of household and route of travel. A 1960 origin and destination survey of the region provides the base data for the study. (ART)

60. HIGHWAY IMPACT IN URBAN AREAS

Main Investigators: Harold L. Michael and Alan F. Lohr.

Status of Research and Publications: Continuing project, in its third year. No reports have as yet been issued. First report on early impact of a highway improvement in one city will be issued in June, 1962.

Agencies: Purdue University, Joint Highway Research Project, in cooperation with the Indiana State Highway Commission and the U. S. Bureau of Public Roads.

Previous Digest report: 7:2-53. (HLM)

61. LAND ECONOMIC STUDIES

Main Investigators: V. G. Stover and H. L. Michael.

Status of Research and Publications: Project initiated in 1961 and planned for completion in mid 1963. No reports except for numerous case studies of individual pieces of property to date.

Agency: Purdue University, Joint Highway Research Project in cooperation with Indiana State Highway Commission and U.S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. To determine what happens in the market place and to land use of remainders of property which are partially taken for highway right-of-way.

Method of Study. Numerous case studies of such remainders are being made on a randomly selected basis on all types of highway improvements in all parts of Indiana. The history of each original parcel for five to ten years preceding the highway improvement, information on the damages paid and appraisals made at the time of the taking, and happenings in the market place or change in land use of the remainder are obtained for each parcel. An analysis of numerous such case studies is contemplated with the belief that such analysis will provide answers as to what can be expected to happen to such remainders. Control is being maintained by similar studies on adjacent property not affected in size by right-of-way taking, and parcels distant from highway. (HLM)

62. WATER POLLUTION - ECONOMIC ASPECTS AND RESEARCH NEEDS

Main Investigator: Allen V. Kneese.

Status of Research and Publications: Completed and published as monograph, January, 1962, with title indicated above. Available from the Johns Hopkins University Press, Baltimore, Maryland. ($1.75)

Agency: Resources for the Future, Inc.

Previous Digest report: None.

Major Findings. The traditional focus of water pollution policy has been more upon specific sources of pollution and their control than upon systems that would be designed to bring maximum social and economic benefits to whole basins which are hydrologically interdependent. Part I of the study treats water pollution as a problem in efficient allocation of resources, presents an explanation of some of the difficulties involved in achieving a fully optimum system of waste disposal and water supply, and suggests a means for including difficult to evaluate social goals in the design procedure. It is concluded that improved waste disposal - water supply systems will depend on successful research in both the physical and social sciences. In Part II four areas of research are outlined, together with some suggested approaches to the research problems they present. These areas are: (1) physical and biological research aimed at more accurate and flexible prediction of the physical characteristics of polluted waters at specific points and under widely varying conditions; (2) physical, biological and economic research aimed at determining the likely range and relative costs of alternatives for controlling water quality in an optimum manner; (3) research aimed at extending knowledge of the costs of damages imposed by pollutants in various concentrations and under various conditions. This includes physical, biological, and social science research on the effects of pollution; and (4) research aimed at further development of formal economizing technique capable of handling so broad an array of complex data and incorporating it into over-all water resource development planning. (AVK)

63. RESOURCES IN AMERICA'S FUTURE

Main Investigators: Leonard L. Fischman and Hans H. Landsberg, under general supervision of Joseph L. Fisher.

Status of Research and Publications: Research completed. Manuscript being prepared by editors of RFF for publication by Johns Hopkins Press, probably before the end of 1962.

Agency: Resources for the Future, Inc.

Previous Digest report: 8:1-61. (HHL)

64. FINANCIAL PROGRAMS FOR LOWER MIDDLE INCOME HOUSING

Main Investigators: Jack E. Gelfand and Edwin Eames.

Status of Research and Publications: Study is divided into two broad categories: (a) sociological survey of lower-middle income families and (b) formulation of financial programs. Part A now in final write-up stage and Part B in analysis stage.

Agency: Temple University, Bureau of Business and Economic Research, under contract with the Pennsylvania Bureau of Community Development, Department of Commerce, through a grant from the United States Housing and Home Finance Agency under Section 314 of the Housing Act.

Previous Digest report: 8:1-62.

Research Problem. The principal problem is to determine the extent to which alternative financial programs can be formulated to increase the availability of adequate rental and owner-occupation housing in urban renewal areas for lower-middle income families. For purposes of this study, lower-middle family income is defined as the aggregate annual earnings of selected members of a family (or household) in the range of $3,000 up to (but not including) $8,000.

<u>Method of Study</u>. The study was conducted in Philadelphia, Pittsburgh, and Harrisburg. More than 1500 households were interviewed in the three cities to determine their social characteristics, economic capabilities, and housing attitudes. These data were used as the inputs into financial models that were programmed for an electronic computer. Three sets of models were developed, one for sales housing, one for rental housing, and one for rehabilitation.

In the sales housing model, archetypes of housing were selected to meet a variety of needs and tastes. Land, construction, and closing costs were developed for each archetype house.

For each case two houses were selected based on the family's recorded housing attitudes. One house was the minimum house the family would accept; the second was the house they would desire. Costs for each of these houses were then determined under conditions of land ownership and land rent. Thus, four housing costs called loops were developed. Each of the four loops were then processed to establish monthly carrying charges under a variety of financial arrangements. There were six mortgage types depending on the relationship between the down payment and the value of the loop house. Mortgages had four maturity periods, 25, 30, 35, and 40 years. Monthly costs were calculated based on the rate of interest the family could afford. Two alternative income tests were used to determine whether or not the family could afford the monthly payments--18% and 24%. If the income test failed, the rate of interest was reduced by 1/4% monthly and monthly costs recalculated. This procedure continued until some positive rate would enable the case to pass the rest. For each case there were 32 separate sets of answers, four loops times four interest rates times two income adequacy tests.

The central model was established to determine two rental expenditures that each respondent could afford, assuming first that 18% and alternatively that 24% of income can be allocated toward rent. These rentals were than capitalized into values per dwelling unit based on alternative assumptions concerning maintenance costs and financial conditions.

The rehabilitation model made similar calculations to determine the amount of rehabilitation work that each family could undertake based on their current assets and ability to finance these expenditures with their income acting as their credit limitation. (JEG)

65. POTENTIAL ECONOMIC DEVELOPMENT OF THE UNITED STATES SOUTHWEST

Main Investigators: Benjamin Higgins, Warren Adams, Forest G. Hill, David Huang, Stephen L. McDonald, Eastin Nelson.

Status of Research and Publications: Research was begun in June, 1961, and will continue through August, 1963. It is expected that a number of articles will be published as a result of work done on the project and a volume of essays is now being planned.

Agency: University of Texas, Department of Economics, under a grant from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The focal point of attention in the proposed program is the implications for future growth of the dominant role of the petroleum industry in the growth of the Southwest. This will involve a study of the history of the economy of the Southwest and particularly a study of the development of the petroleum industry with reference not only to oilfield developments proper, but also to the larger chain reaction of industrial transformation that ensued. In order to appraise the prospects for the petroleum industry of the Southwest, its place in the world petroleum industry and major foreseeable developments in the world industry must be appraised. An attempt will also be made to put the growth of the region into its proper setting in the growth of the U.S. economy as a whole. As part of the study of past and prospective economic growth of the region the following will be included: analysis of regional income; inter-industry studies; urban growth and city-hinterland relations; the behavior of the Southwest economy over the business cycle; an appraisal of resources of the Southwest other than petroleum (including human resources); the relationship of the resource pattern to public finance and public investment; inter-regional relationships; and relationships with Latin American countries.

Previous Relevant Research. The Southwest, A Report by the Committee on the Southwest Economy to the President's Council of Economic Advisers, 1954. Perloff, Harvey S., Dunn, Edgar S., Lampard, Eric E., Muth, Richard F., Regions, Resources and Economic Growth. The Johns Hopkins Press, 1960.

Hypotheses. (1) That the petroleum industry has played a leading role in the development of the Southwest. (2) That growth of the petroleum industry in the future will be at a slower rate than in the past, posing problems regarding the future development of the Southwest.

Method of Study. The method of study will consist primarily of historical analysis and application of statistical methods to basic published data, the construction of models of regional growth under different assumptions, and the use of such models for purposes of projection. (AB)

66. INTER-COMMUNITY SPILLOVERS OF PUBLIC EDUCATION COSTS AND BENEFITS

Main Investigators: Werner Z. Hirsch, Burton A. Weisbrod, and Elbert W. Segelhorst.

Status of Research and Publications: Two and one-half year program, completion scheduled for September of 1963 with report of findings to the U.S. Office of Education. There are no definite publication plans.

Agency: Washington University, Institute for Urban and Regional Studies, St. Louis, by contract from the Office of Education, U.S. Department of Health, Education and Welfare.

Research Problem. Public primary and secondary education is provided in the United States within a system of fiscal federalism. The main decisions with regard to public education rest with various units -- individuals, families, and levels of government, i.e., local school districts, state and federal government. Governments on all three levels can change the following parameters of action: (1) expendutire levels, (2) subsidy payments, (3) service levels, (4) efficiency, (5) taxes and tax burden, and (6) tax base through zoning and other devices which change the residential, commercial, industrial tax base mix. Consumers and non-consumers of public education, taxpayers and voters make decisions which affect public education only indirectly through their vote and location decisions.

The chief concern is with spatial spillover of public education costs and benefits, i.e., with those costs and benefits which are realized outside of the region in which the education is provided. The differences between a region's public education costs and benefit spillover is the region's net social cost or benefit. Spatial spillovers of a region's public education costs and benefits are of concern because of their effect upon the efficiency of resource allocation and because of their effect upon the distribution of income. The objective of the research is to identify the key issues affecting spatial spillovers of public education costs and benefits, and to assess their relative importance.

Method of Study. A conceptual framework is being developed to analyze spatial spillovers of public education for various geographical units -- the school district, the metropolitan area, and the region of the country. An attempt will be made to estimate the spatial spillovers for a relatively recent period, possibly the year 1960. Having assessed the relative importance of spillovers in the specific geographic unit, alternative conditions will be stipulated and the new situation will be simulated so as to ascertain the effect of changes upon the cost and benefit spillover pattern. Without stipulating any desirable normative pattern, the results of alternative policy decisions by different units and levels of government upon spillovers can be compared. (EWS)

67. SEASONAL VARIATION STUDY

Main Investigators: Philip J. Bourque and George J. Brabb.

Status of Research and Publications: Continuing study. Publications include: "The Impact of Seasonality on Washington Unemployment", University of Washington Business Review, February, 1958; "Seasonal Variation and Economic Stability", Proceedings of the Western Economic Association, 1959; Seasonal Variation in Washington Employment. Occasional Paper #12, Bureau of Business Research, University of Washington, 1960; Geographic Differentials in Seasonal Instability, U.S. Department of Labor, Interstate Conference on Labor Statistics, June, 1960; "Winter Work", University of Washington Business Review, Summer, 1960; "Concept and Computations - Some Problems in Seasonal Analysis", Proceedings of The American Statistical Association, Business and Economic Statistics Section, 1960; "Regional Patterns of Seasonability in the Labor Force and Its Components", Paper presented at the Western Section of the Regional Science Association, 1961.

Agency: University of Washington (Seattle), College of Business Administration.

Previous Digest report: None.

Research Problem. Periodic intra-year fluctuations in the labor force and its components in the continental states of the U.S., to which the designation "seasonal" has been applied, prevail over a wide range of activity. The purpose of this investigation is to assess the degree to which differences in seasonal patterns exist regionally. Awareness of differences in the seasonality of employment is vitally significant for the maintenance of stable levels of employment and the regularization of income. In fact, in some areas of the nation, seasonal fluctuations are the dominant cause of economic instability.

Previous Relevant Research. Kuznets, Simon, Seasonal Variations In Industry and Trade; Woytinsky, W.S., Seasonal Variations in Employment in the United States; Bureau of Labor Statistics, U.S. Department of Labor, The Extent and Nature of Frictional Unemployment, Joint Economic Committee Study Paper No. 6 (1959).

Major Findings. Our research has led us to three main findings: Measures of the incidence of seasonality upon employment and unemployment as shown in the national aggregates under-estimate the prevalence and amplitude of seasonality in the United States. Seasonal patterns in different states often show marked differences in timing and amplitude; such patterns in state activity have changed over the past decade. Public policy aspects of seasonal change, in the U.S. and in other countries, is of particular interest to the authors. (PJB)

68. CYCLICAL VARIATION STUDY

Main Investigator: Philip J. Bourque.

Status of Research and Publications: Study initiated 1961. Publication expected in late 1962 or 1963.

Agency: University of Washington, College of Business Administration.

Previous Digest report: None.

Research Problem. The purpose of this study is to examine the timing and severity of business cycles in states and regions of the United States. Since states differ widely in industrial composition as a result of differing factor endowment and stages in economic development, their exposure to and experience during the course of national business cycles vary considerably. Greater knowledge of regional differences in cyclical behavior should increase our understanding of "national" business cycles and provide improved guides for public policies to achieve high levels of regional employment.

Previous Relevant Research. Among the precedents for this study; Neff, Philip and Weifenbach, Annette, Business Cycles in Selected Industrial Areas; Borts, George H., Regional Cycles of Manufacturing Employment; Hanna, Frank A., State Income Differentials 1919-1954.

Method of Study. This study was initiated during 1961 through the support of the University of Washington; much of the empirical material used in this study is the product of the related Seasonal Variation Study. The timing and amplitude of cyclical fluctuations in state employment, 1947-1960, has been identified according to methods developed by the National Bureau of Economic Research. Analysis of the prevalence of cycles in different regions, their timing and severity, are the main focus of attention.

The results of current research thus far tend to confirm the earlier statistical findings of Borts and to sharpen or extend certain of his conclusions and to expand upon certain lacunae; the present work is broader in coverage, includes more states and activities, and is a continuing activity. Most previous studies, including those of Vining, Hannah, Williams, Simpson and others, rely upon annual income and employment averages and/or trend elimination techniques which do not appear satisfactory for the purpose of establishing turning points, amplitude, and leading and lagging characteristics of cycles in different states. The association of regional cycles with economic structure, income levels, industrial diversity and economic growth is being investigated. (PJB)

69. AN EVALUATION OF MULTIPLE USE PRACTICES ON FORESTED MUNICIPAL WATERSHEDS OF THE DOUGLAS FIR REGION

Main Investigator: H. Leo Teller.

Status of Research and Publications: The research is in the data-collection phase. Publication as doctoral dissertation anticipated in June, 1963.

Agency: University of Washington, College of Forestry. Financial assistance, in the form of a Doctoral Dissertation Fellowship in Natural Resources, from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The desirability of multiple use of forested municipal catchments has long been a controversial subject. The purpose of this study is to determine the background to and the physical and economic results of the principal management policies on a selected number of municipal catchments in western British Columbia, Washington and Oregon.

Management policies on these catchments range from production of water only and closure of the land to public access to production of water, timber and power, and almost uncontrolled public entry for hunting and fishing. The problem consists in trying to determine the physical and economic effects of these policies.

Previous Relevant Research. Well designed experiments on the relationship between land use and water quality, quantity and timing, are being conducted throughout the nation. Economic studies related to multiple use have been mainly theoretical or, where actual situations have been used, they have generally dealt with agricultural watersheds. I have no knowledge of any work done specifically on municipal catchments, where the interrelation between forestry, water supply and economics has been undertaken in an integrated regional study.

Hypothesis. That the physical and economic effects of different municipal catchment management policies in a particular region can be determined by a study of the administrative history, records of physical water characteristics and economic data from a selected number of watersheds. Principally, that a knowledge of these effects in the past will aid in better decision-making for the future.

Method of Study. Histories of water supply in each city will be studied, with particular emphasis on the reasons for the development of the catchment management policy. Through an analysis of available records, an attempt will be made to assess trends in water characteristics over the last ten to twenty years and to determine how these have been influenced by management policy. Costs and returns associated with the various policies will be determined. Finally, the relationship between municipal catchment land use and regional recreation development will be studied. (HLT)

70. RESOURCES, PEOPLE, AND ECONOMY OF EAST-CENTRAL WYOMING

Main Investigators: Floyd K. Harmston and Richard E. Lunc.

Status of Research and Publications: Draft nearly completed, will be published in 1962.

Agency: University of Wyoming, Division of Business and Economic Research.

Previous Digest report: None.

Research Problem. This study is a compilation and analysis of many of the important facets of the economy of Goshen and Platte Counties in Wyoming. A Leontif's input-output matrix is being used in examining the economic structure. It is one of a series of studies completed on other groups of counties in Wyoming. (REL)

METROPOLITAN AREAS

Chicago Industrial and Commercial Study

The impact of technological change on the Chicago area's economy and employment will be the focus of a two-year study for which plans were announced in January. Sponsors of the study are the Mayor's Committee for Economic and Cultural Change and a number of cooperating groups, including the Department of City Planning, the Association of Commerce and Industry, the People's Gas Light and Coke Company, the Harris Trust and Savings Bank, and the Commonwealth Edison Company. Objectives of this study are to identify technological changes which will affect the area's economy, to determine types of industries which might wish to locate in the area, and to develop a plan of action to encourage industrial expansion. Field surveys and research will be conducted by the Armour Research Foundation, and the program will be assisted by a grant from the Ford Foundation. (JF)

TRANSPORTATION

Alternative Approaches Proposed by Penn Jersey Transportation Study

The Penn Jersey Transportation Study has proposed five contrasting types of generalized regional transportation plans as optional approaches to solution of the transportation problems of the Camden-Philadelphia-Trenton Metropolitan Region between the present and 1985. After wide discussion by government officials, transportation authorities, and representatives of civic organizations, modified versions of the five alternatives will be tested in PJ's regional growth model to determine their respective costs, cost-benefit ratios, and the effects each can be expected to have on the future land use, economic development, and general livability of the region. The final selection will then be made by PJ's Policy Committee, which consists of representatives of eight counties, City of Philadelphia, the highway departments of Pennsylvania and New Jersey, and the U.S. Bureau of Public Roads, all of which agencies are participants in the study.

Cooperative Highway and Urban Planning for Small Cities[a]

The City Planning Division of the University of Arkansas will undertake a study of cooperative highway and urban planning for small cities. It will include an analysis of methods and procedures being used in a number of states for coordinated highway and urban planning for small cities (those under 50,000 population located outside metropolitan areas), and information

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(a) From ASPO Newsletter, January, 1962.

on the services provided by state highway departments and state planning agencies. The project, financed by a grant of $18,000 from the Bureau of Public Roads, will be under the direction of Professor William S. Bonner, head of the Division.

Panel Reports on Urban Transportation, Highway Research Board

Needed research in the urban transportation field was reported on by five separate panels at the 41st Annual Meeting of the Highway Research Board held in January, 1962, in Washington. Subject areas to which the panels had been asked to direct themselves, and the chairman in each case, were as follows: Panel #1, "Changing Land Use Patterns and the Forms of Metropolitan Areas of the Future," Henry Fagin of the Penn-Jersey Transportation Survey; Panel #2, "Human Values Related to Urban Transportation," J. Douglas Carroll, Jr., of the Chicago Area Transportation Survey; Panel #3, "Interrelations of Transportation and Economic Development," Donald C. Wagner of the City of Philadelphia; Panel #4, "Decision Making in Transportation and Other Urban Development and Renewal Programs," Morton J. Schussheim of the Housing and Home Finance Agency; and Panel #5, "Political Factors, Such as Forms of Government and Intergovernmental Relationships, and the Administration and Financing of Urban Transportation," Paul Appermann of the Northeastern Illinois Metropolitan Area Planning Commission.

Seventy persons, with a variety of professional backgrounds, were involved in the deliberations which preceded presentation of the reports, which posed numerous significant questions needing study in each subject area, and made many specific research proposals. Final drafts of the reports were not available for abstracting as this issue of the Digest went to press. However, we understand that publication is expected at an early date. Further information can be obtained from M. Earl Campbell, Secretary, Committee on Urban Transportation Research, Highway Research Board, 2101 Constitution Avenue, Washington 25, D. C.

HOUSING AND URBAN RENEWAL

Research Program of the Housing and Home Finance Agency

Progress of the urban studies and housing research program of the Housing and Home Finance Agency for the fiscal year ending June 30, 1962, is covered in a brief report issued by the agency last month. Of five specific study projects, three are being conducted by the Bureau of the Census and two by the staff of the agency with assistance from some of its constitutuents and from consultants. Projects being conducted by the Census Bureau include (1) the preparation of monthly statistics on the sales volume and sales prices of new, one-family non-farm homes for the country as a whole and for three major regions, North, South and West; (2) field work for an analysis of 4,000 residential mortgage foreclosures in eight selected metropolitan areas; and (3) special tabulations of otherwise unavailable data from the 1960 Census of Housing relating to housing conditions of families and individuals in the older age brackets. Staff study projects include (4) development of improved techniques for estimating family displacement resulting from public improvements and other government actions and (5) case studies of or cooperative intermunicipal approaches to the preparation and implementation of joint plans and programs for capital improvements and services. Further information on this program may be obtained from Morton J. Schussheim, Assistant Administrator, who heads the agency's Office of Program Policy. (SK)

RECREATION AND OPEN SPACE

Report of the Outdoor Recreation Resources Review Commission (b)

The Outdoor Recreation Resources Review Commission has submitted a report to the President and to the Congress with the major findings of the Commission and its recommendations for action required to meet the Nation's outdoor recreation needs in 1976 and 2000. Part I of the report describes the nature of outdoor recreation and its position in American life; Part II contains specific policy and program recommendations, and a statistical appendix provides 41 tables related to supply and demand for these resources. This report, entitled "Outdoor Recreation for America" (245 pages, $2.00), is available from Superintendent of Documents, Government Printing Office, Washington 25, D. C.

To develop background information for its work, the Commission initiated a series of studies by Government agencies, universities, nonprofit research organizations, and individual authorities. Beginning in April, reports on these studies will be released and will be made available through the Superintendent of Documents (see above). Prices are not yet available. These reports are listed below with a brief description of seven to indicate the variety of information covered. (1) "National Recreation Survey" (Study Report No. 19, 2 Vols., 300 pages), prepared by the Commission staff on the basis of data collected by the Bureau of the Census, contains the

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(b) From the Statistical Reporter, February, 1962.

tabular results and analysis of a nation-wide survey of outdoor recreation habits and preferences. Tables show various participation rates by activity and region, according to age, sex, size of place of residence, family income, education, occupation and color. Activity rates are also shown by state of health and physical impairment. Activity preference and data on vacation trips and outings are expressed by selected socioeconomic characteristics. Estimates are made of expenditures, proportion of leisure time devoted to outdoor recreation, and other factors. Descriptive analyses of the results of the survey include socioeconomic factors associated with participation in 17 specified outdoor activities, expenditures on vacation, trips, and outings; and background factors associated with participation in groups of activities; (2) "Public Outdoor Recreation Areas -- Acreage, Use, Potential" (Study Report No. 1, 260 pages), prepared by the Commission staff, presents a description and analysis of all nonurban public designated areas in the 50 states, Puerto Rico, and the Virgin Islands. Areas containing more than 40 acres are evaluated and analyzed in terms of use pressures, fees charged, visits, major activities, facilities, number of employees, and future expansion potential; (3) "Wilderness and Recreation -- A Report on Resources, Values, and Problems" (Study Report No. 3, 340 pages), prepared by the Wildland Research Center of the University of California, Berkeley, presents a comprehensive discussion and analysis of wilderness preservation. The study includes an inventory of 64 areas, containing approximately 28 million acres; an evaluation of the commercial potential of existing wilderness areas; and an analysis of the social and economic characteristics of wilderness users; (4) "The Quality of Outdoor Recreation: As Evidenced by User Satisfaction" (Study Report No. 5, 95 pages), prepared by the Department of Resource Development, Michigan State University, presents the findings of a study designed to test the usefulness of user satisfaction as a measure of area quality; (5) "Potential New Sites for Outdoor Recreation in the Northeast" (Study Report No. 8, 170 pages), prepared by the Economic Research Service of the Department of Agriculture, presents the findings of a study designed to determine the existence of potential recreation sites of 30 acres or more, currently in private ownership and located in the 10 densely populated Northeastern States; (6) "Private Outdoor Recreation Facilities" (Study Report No. 11, 150 pages), prepared by the Economic Research Service of the Department of Agriculture, consists of two parts. The first reports on a mail survey to private owners of recreation facilities and includes a partial inventory from secondary sources of industrial recreation areas. The second is a qualitative appraisal of 66 cases representing various types of private recreation facilities scattered throughout the United States; (7) "Public Expenditures for Outdoor Recreation", (Study Report No. 25, 90 pages), prepared by the Commission staff, indicates the total direct expenditures made by the Federal, State, and local governments for providing outdoor recreation opportunities, facilities, and services from 1951-1960.

CONFERENCES

The City and History

In July, 1961, a Conference on the City and History was held by the M.I.T.-Harvard Joint Center for Urban Studies in conjunction with the Harvard Summer School. The gathering included historians and other urban specialists.

Attention was focused on the role of the city in technological innovation and economic development, the city in the history of ideas, the city as an artifact, and the implications of history for the contemporary urban world.

The proceedings are now being edited for publication during 1962. Publication of the proceedings is being supported by the Joint Center and the Summer School.

Foundations of Urban Life and Form

During the fall semester, the Institute for Urban and Regional Studies of Washington University (St. Louis) held a seminar on "Foundations of Urban Life and Form." Eighteen faculty members participated in this seminar which met every second week, and the following papers were presented: "A Historical Perspective of American Urban Experience", by Richard C. Wade, Washington University; "Emergence of Urban Form", by Joseph R. Passonneau, Washington University; "Emergence of Urban Land and Property Laws", by William L. Weismantel, Washington University; "Foundations of Urban Politics", by Robert C. Wood, Massachusetts Institute of Technology; "The Structure of the Urban Community: An Examination of Theory and Research", by Leo G. Schnore, University of Wisconsin; "Social Problems Associated with Urban Minorities", by Lee M. Robins, Washington University; "Foundations of Urban Government Finance", by Werner Z. Hirsch, Washington University; "Foundations of Urban Planning", by F. Stuart Chapin, Jr., University of North Carolina.

Formal discussants included A. Theodore Brown, Kansas City University, Mark Perlman, Johns Hopkins University, Leo F. Schnore, and the following from Washington University: Ralph E. Morrow, Fumihiko Maki, Peter Riesenberg, Roger Montgomery, Carl McCandless, Robert Salisbury, Richard C. Wade, David B. Carpenter, John A. Stern, Werner Hochwald, Elbert Segelhorst, William L. Weismantel, and Joseph R. Passonneau.

The papers are being published by Holt, Rinehart & Winston and should be available in early 1962. (WZH)

Wabash Basin Series on Regional Development and Change

The Wabash Valley Advisory Committee of the Council on Community Development, University of Illinois, has sponsored a series of lectures and a three-day conference on regional development and change over the past academic year. Papers were presented by Dr. Leon Moses, Director, Transportation Center, Northwestern University; Dr. Marion E. Marts, Professor of Geography and Director of Summer Quarter, University of Washington; Dr. Peter H. Rossi, Director, National Opinion Research Center, University of Chicago; Dr. John R. Borchert, Urban Research Director, Upper Midwest Economic Study, and Professor of Geography, University of Minnesota; Mr. Irving K. Fox, Vice President, Resources for the Future, Inc.; and Mr. Walter M. Phillips, Executive Vice President, Delaware River Basin Commission; and many others.

These papers will form part of a monograph to be published this fall. Further information can be obtained from Dr. Ronald R. Boyce, director of the series and editor of the monograph, at the Bureau of Community Planning, University of Illinois, 1202 W. California Ave., Urbana, Ill. (RRB)

Regional Accounts

The Committee on Regional Accounts will hold its second Regional Accounts Conference from November 29 through December 1, 1962, in Miami Beach, Florida. The general subject matter of the conference is "Elements of Regional Accounts", and the following program has been prepared:

I Regional Economic Growth Accounts: "The Regional Flow Account" by James M. Henderson, University of Minnesota; "The Regional Income Account", by Selma F. Goldsmith, U.S. Bureau of the Census.

II The Government Sector in the Regional Account: "Public Finance as an Integral Part of Regional Accounts", by Jesse Burkhead, Syracuse University; "Data for the Public Finance Sub-Account", by L. L. Ecker-Racz and Allen Manvel, Advisory Commission on Intergovernmental Relations and U.S. Bureau of the Census.

III The Human Resources Sector in the Regional Account: "Construction of Human Resources Component in Series of Regional Accounts", by Mark Perlman, Johns Hopkins University; "Data for the Human Resources Element in Regional Accounts", by Leo F. Schnore, University of Wisconsin.

IV Intra-Regional Accounts: "An Accounts Framework for Intra-Metropolitan Models", by Britton Harris, Penn Jersey Transportation Study; "Data from Intra-Metropolitan Accounts", by William A. Niskanen, The Rand Corporation.

V Panel on Integrated Accounts Framework: "An Integrated Human Resources-Public Services Intra-Regional Account", by Harvey S. Perloff, Resources for the Future, Inc., and Charles L. Leven, University of Pennsylvania.

In December, 1961, the papers of the First Regional Accounts Conference on "Design of Regional Accounts" were published by the Johns Hopkins University Press. (WZH)

TRAINING PROGRAMS

Summer Institute in Regional Science

An intensive eight week training program in regional science will be conducted at the University of California (Berkeley) from June 25 through August 17. Cooperating with the University's Business Administration Extension in putting on the program are the Regional Science Association and the National Science Foundation. The faculty will include Dr. Duane F. Marble of the University of Pennsylvania, program director; Dr. William Goldner, University of California, Berkeley, associate director; Dr. Brian J. Berry, University of Chicago; and Dr. David Bramhall, Johns Hopkins University. Dr. Walter Isard and Dr. Benjamin H. Stevens of the University of Pennsylvania, and Dr. William L. Garrison of Northwestern University are also expected to join the staff for shorter periods of time. Further information may be obtained from Dr. Marble at the Wharton School, University of Pennsylvania, Philadelphia 4, Pa.

University of Pittsburgh Program in Urban and Regional Economics

The University of Pittsburgh has announced that a new graduate program in urban and regional economics leading to the M.A. or Ph.D. degrees will be offered beginning in September, 1962. The program of study will be coordinated with the new Center for Regional Economic Studies. The Center will provide a focus for graduate training as well as basic and applied research.

Dr. Edgar M. Hoover, president of the Regional Science Association, will direct the Center and teach courses at the graduate level. Dr. Benjamin Chinitz, Chairman of the Department of Economics and associate director of the Pittsburgh Regional Economic Study, will also be a member of the staff of the Center. Assistantships, fellowships and tuition scholarships are available. Further information may be obtained from Professor Benjamin Chinitz, Department of Economics, University of Pittsburgh, Pittsburgh 13, Pennsylvania. (BC)

Latin American Planning Program, Yale University (c)

Yale University has entered into an agreement with the Organization of American States to assist in the implementation of recommendations set forth in the Act of Bogota on a general development plan for the Americas in the field of housing and planning.

Through its Graduate Program in City Planning, Yale will provide teachnical policy and planning guidance to the OAS General Secretariat on the functioning and further strengthening of the Inter-American Housing and Planning Center at Bogota, Columbia, and on the development of the Inter-American Program for Urban and Regional Planning at the National Engineering University of Lima, Peru. A senior member of the Yale planning faculty will serve as principal adviser.

The agreement will extend for a period of six years. It also provides for administrative, academic and personal guidance to be given at Yale to a group of Latin American graduate students each year in the fields of housing and planning.

RESEARCH MATERIALS

Regional Economic Projections

The National Planning Association is organizing a continuing research program engaged in developing past and projected estimates of economic and demographic factors for individual states, multi-state regions, and individual metropolitan areas. The series is designed as a working tool for long-range planning by corporations concerned with marketing and plant location problems; and by private and public local planning and development agencies

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(c) From ASPO Newsletter, November, 1961.

concerned with providing essential services in urban areas. The series will quantify the significant factors in each sub-national economy five and ten years hence and indicate their inter-relationships. Some of the factors with which the series will be immediately concerned include the following (others will be added as research progresses):

- Population: total state per cent of national population; urban population as per cent of total population; state deviation from national ratio of urban to total population.

- Employment: total; number in each industry; average rates of change in state shares of national industry employments.

- Industrial composition of state employment: industry shares of state total employment; state industry shares of employment compared with national industry shares; average annual rates of change in comparison of state to national industry composition.

- Relation of state labor force and industry employment to state population.

- Components of state industry employment changes: total annual change; "compositional" changes; "differential" changes.

- State income: personal income; disposable income; state shares of national, personal, and disposable income; per capita personal and disposable income; state per capita incomes compared with national per capita incomes.

- State personal saving and consumer expenditures.

- State industry net and gross outputs.

Further information may be obtained from the National Planning Association, 1606 New Hampshire Avenue, N.W., Washington 9, D.C. (SS)

State and Small Area Reports From 1960 Housing Census.(d)

The Bureau of the Census has released the first of the "States and Small Areas" final reports (Vermont) of the 1960 Census of Housing, about 7 months earlier than the corresponding bulletin from the 1950 Census. This report series, designated as HC(1), will include 55 separate reports for the United States by regions and geographic divisions, each of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands. Most of these reports are scheduled to be issued during the first half of 1962, with the U.S. Summary to be available later in the year, and they will subsequently be consolidated and issued in cloth binding as Volume I of the Housing Census reports.

(d) From Statistical Reporter, January, 1962.

Information in the HC(1) series covers occupancy characteristics (tenure, number of persons, color of occupants, persons per room, year moved into the unit, and vacancy status); structural characteristics (number of rooms, bedrooms, the year structure was built, number of units in the structure, and presence of basement); condition of the unit; plumbing facilities (water supply, toilet and bathing facilities, and number of bathrooms); equipment (air conditioning, clothes dryer, clothes washing machine, home food freezer, radio and television sets, telephone, and number of automobiles); cooking fuel, heating fuel, and water heating fuel, and financial characteristics including value, contract rent, and gross rent.

In the state reports, simple distributions are shown for the state as a whole and for each standard metropolitan statistical area (SMSA), urbanized area, place of 1,000 inhabitants or more, county, and the rural-farm and rural-nonfarm parts of the country.

A count of housing units in structures with elevators is included in the U.S. summary report for places of 50,000 inhabitants or more. Data on source of water and type of sewage disposal are shown for places with between 2,500 and 50,000 inhabitants and for county totals exclusive of places of 50,000 or more.

Selected characteristics of housing units with nonwhite household heads will be published separately for SMSA's and urban places containing at least 100 such units. Selected data will also be shown for SMSA's and urban places with 400 or more units occupied by white household heads with Spanish surnames in Arizona, California, Colorado, Texas and New Mexico. In other states similar data will be published for SMSA's and urban places with 400 or more units occupied by household heads of Puerto Rican birth or parentage.

The HC(1) reports will be individually priced and are available from Superintendent of Documents, Government Printing Office, Washington 25, D.C.

Establishment of Census Bureau's Quarterly Household Survey [e]

Beginning in April 1962, the Census Bureau will initiate the use of an additional national household sample, on a quarterly basis, to meet the increased demands for data collection and survey research. According to present plans, this supplementary sample, designated the Quarterly Household Survey (QHS) will consist at the outset of about 17,500 interviewed households -- or approximately half the size of the Current Population Survey (CPS) -- located in 333 different areas of the country. In order to simplify administrative problems, reduce sampling costs, and take advantage of the existence of an experienced staff of interviewers, the same areas will be used for both the CPS and the QHS.

Although smaller than the present CPS sample, the supplementary panel will be almost as large as the sample used for the CPS prior to 1956 and

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(e) From Statistical Reporter, February, 1962.

will have a much wider geographic spread. Between 1954 and 1956, the CPS sample consisted of about 21,000 interviewed households in 230 areas. During the prior 10 years, the CPS also totaled some 21,000 households but was limited to only 68 areas.

The Bureau plans to use the Quarterly Household Survey in as flexible a manner as possible in order to meet a wide range of demands. The sample size to be used for any given purpose will be one of the flexible items. The frequency of use of the supplementary panel will also be flexible.

Commitments have already been made for all of the capacity of the initial QHS enumeration in April 1962. This first enumeration will collect information on expenditures for home alterations, repairs, and remodeling for the Construction Statistics Division of the Census Bureau and also will be a source of a sample of long-term unemployed persons for a detailed inquiry sponsored by the Bureau of Labor Statistics. There is still available capacity for other subjects in the scheduled enumeration in fiscal 1963 (July and October 1962 and January and April 1963).

Inquiries concerning the Quarterly Household Survey should be sent to Robert B. Pearl, Chief, or Daniel B. Levine, Assistant Chief, Demographic Surveys Division, Bureau of the Census.

New Report in Census Forms and Procedures Series[f]

The Bureau of the Census has published the second of a series of reports bearing the general title "Data-Collection Forms and Procedures" and dealing with the 18th Decennial Census. It includes reproductions of questionnaires and explanation of the enumeration procedures used in the Survey of Components of Change and Residential Finance which was taken in connection with the 1960 Census of Housing. The first report in the series was on forms and procedures used in the 1960 Censuses of Population and Housing (SR No. 280, Apr. '61, p. 57). The third report, which has gone to press, will cover the forms and procedures used in the 1959 Census of Agriculture and related surveys.

The report on Survey of Components of Change and Residential Finance forms and procedures (39 pages, 30 cents) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

BIBLIOGRAPHIES

University Business and Economic Research Projects

A compilation of faculty and doctoral research projects in business and economics completed or in progress in university schools of business and departments of economics during the academic years 1957 through 1961 has been

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(f) From the Statistical Reporter, February, 1962.

published by the Small Business Administration. Entitled A Survey of University Business and Economic Research Projects, 1957-1961, the survey was prepared by Stella Traweek of the Bureau of Business Research, University of Texas, under the direction of Dr. John R. Stockton, director of the Bureau. A total of 2,298 projects are reported in the survey, listed under some twenty-five main headings. Of particular interest to readers of the Research Digest are the projects listed under the headings of Regional Planning and Development and Urban Land, Housing, Real Estate. The survey is available from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. The price is $3.50. (JF)

Urban Real Estate Research

Continuing its recently inaugurated series of summaries of urban real estate research, the Urban Land Institute has now released Research Monograph No. 5, Urban Real Estate Research: 1960. Edited by Dr. Jerome P. Pickard, Research Director, and Mrs. Arlene Balaban, Research Librarian, with the collaboration of Dr. David T. Rowlands, this publication contains an annotated bibliography of some 191 studies published during 1960, together with a discussion of 90 additional studies in process during the year. In addition to developing an inventory of research in the physical, economic and social aspects of land utilization, the series has as general objectives the determination of the nature and extent of financial support accorded to research in this field, and the identification of areas of needed research. Copies of the monograph may be obtained from the Institute at 1200 18th Street, N.W., Washington 6, D.C. (SK)

Personal Income Data for Small Areas

Availability of estimates of personal income by type and by source for small areas is covered in a late 1961 publication issued by the Office of Marketing Services of the United States Department of Commerce. Entitled Personal Income: Key to Small-Area Market Analysis, the publication lists the organizations which have prepared such estimates and the years for which they have been made. According to this survey, income estimates for small areas, usually counties, have been prepared in twenty-six states and the District of Columbia, and are underway in eight other states. Most of the estimates conform to Department of Commerce concepts and are based on state estimates prepared by the Department. Altogether the states for which estimates are available include about seventy per cent of the total personal income of the country. (SK)

New Exchange Bibliographies, Council of Planning Librarians

The Council of Planning Librarians has announced the publication of four new bibliographies in its series of Exchange Bibliographies. These are:

No. 18. RESIDENTIAL DENSITIES. By Robert D. Katz, Assistant Professor of City Planning, University of Illinois, Urbana. April, 1961. 20 p. $1.25.

No. 19. HISTORY OF CITY PLANNING. By Thomas W. Mackesey, College of Architecture, Cornell University; edited by Roland W. Mills, Assistant Librarian, Fine Arts Library, Cornell University, Ithaca, N.Y. October, 1961. 65 p. $2.00.

No. 20. CITY AND REGIONAL PLANNING IN INDIA. By Mary Vance, Librarian, City Planning and Landscape Architecture Library, University of Illinois, Urbana. November, 1961. 37 p. $1.50.

No. 21. THE GENERAL PLAN IN THE URBAN PLANNING PROCESS: THEORY AND EXAMPLE. By T. J. Kent, Jr., Professor of City Planning, University of California, in association with graduate students; bibliography compiled by Holway R. Jones, Librarian, City and Regional Planning Library, University of California, Berkeley. December, 1961. $1.50.

The above bibliographies may be ordered singly or any number may be used to begin a subscription of ten consecutive bibliographies for $8.00. All orders, with accompanying check or money order, should be sent to Exchange Bibliographies, Council of Planning Librarians, 6318 Thornhill Drive, Oakland 11, California. (JF)

OTHER

New Studies Undertaken by the Advisory Committee on Governmental Relations

At its eighth meeting, held late last year, the Advisory Committee on Governmental Relations reviewed its activities over the past two years, issued a report dealing with tax overlapping, and selected several additional items for its work program.

The Commission concluded that its work should continue to focus to a significant degree upon relationships between state governments and the counties, cities and other units of local government, as well as giving continuing attention to problems of federal-state relations. The Commission also decided to continue giving major emphasis to the actual implementation of its recommendations for legislative and other action designed to improve federal-state-local relations at national and state levels of government.

New items added to the work program include:

(1) Effect of tax, expenditure and debt practices on location of industry and economic development.

(2) Role of equalization of needs and resources in the structure and operation of federal grants-in-aid.

(3) Some intergovernmental problems in the field of public welfare.

(4) Disposal of surplus federal land holdings.

(5) Factors contributing to success or failure in securing popular approval of governmental reorganization in metropolitan areas.

(6) Specific identification of metropolitan or regional functions in contrast to those susceptible to handling on a localized basis.

Note: Previous reports on the Advisory Committee's program will be found in the Research Digest, Vol. 8, No. 1, pages 65 and 68 and Vol. 8, No. 2, page 97. (SK)

Urban Politics Research Group

Many readers of the Digest will be interested in the activities of an informal organization known as the Urban Politics Research Group. Comprised of political scientists who are actively engaged in research in this field, the group currently includes some thirty-six participants in educational institutions throughout the country. One of the principal interests of the group is in establishing an information pool so that participants can draw on each other's resources and thus facilitate the extension of individual research activities on a broader scale. Information available early this year indicated that participants had conducted studies in some forty-one cities located in eighteen different states. Further information on the group can be obtained from Daniel J. Elazar, Institute of Government and Public Affairs, University of Illinois, 1201 West Nevada Ave., Urbana, Illinois. (DJE)

Pratt Planning Papers

The Planning Department, School of Architecture, Pratt Institute, has initiated a new publication entitled *Pratt Planning Papers*, to be published not less than four times yearly at intervals during the academic year. According to the first issue, February, 1962,"*Pratt Planning Papers* will publish controversial material pertaining to all aspects of planning and related fields." Subscription price is two dollars ($2.00) per year. Correspondence should be addressed to Editor, *Planning Papers*, Pratt Institute, Brooklyn 5, New York. (JF)

AVAILABLE BACK ISSUES OF RESEARCH DIGEST

A few copies of the following back issues of the *Research Digest* are still available, and may be purchased at the regular price of $1.00 per copy.

Vol. 2	No. 2	November, 1955
Vol. 3	No. 2	November, 1956
Vol. 5	No. 2	November, 1958
Vol. 7	No. 2	November, 1960
Vol. 8	No. 1	April, 1961
Vol. 8	No. 2	November, 1961

Copies of both the Cumulative Index to Volumes 1-7 and the separate Index to Volume 8 are also available. One copy free to subscribers. Extra copies $1.00 each.

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Research Digest

Volume 9 *Number 2* *November, 1962*

Bureau of Community Planning · University of Illinois

one dollar

Editor's Notes

Recent months have seen an encouraging growth of interest in the Research Digest. Numerous national organizations have called the Digest to the attention of their members in one way or another, most frequently in their newsletters or other publications. As a result, not only has our circulation increased; more importantly, as can be seen from the present issue, there has been an increase in the flow of material from contributors, thus improving our coverage on current urban and regional research. Given this growth of interest and participation, it is our hope that the Digest can become a constantly more useful reference for persons working in some aspect of the field.

In the belief that there are many persons who would appreciate having the Digest called to their attention, we are enclosing a small descriptive brochure with this issue, and would appreciate it if each reader would hand the brochure to a colleague who might be interested. Additional copies of the brochure can be obtained on request. (SK)

Founded in 1954 by an informal organization known as the Urban Planning Research Group, the Research Digest is prepared and distributed semi-annually, in April and November, by the Bureau of Community Planning of the University of Illinois. Its objective is to serve as a medium of communication among individuals and groups engaged in urban and regional research. Abstracts are invited covering research projects recently initiated, projects well underway on which significant progress or findings can be reported, and projects recently completed. Brief notes on items of interest to researchers in this field are also desired, as are special articles in keeping with the character of the publication. Subscription is $2.00 per year. Address all communications to Research Digest, Bureau of Community Planning, University of Illinois, 1202 West California Avenue, Urbana, Illinois.

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Department of Economic and Social Statistics

BIBLIOGRAPHIES

OTHER

1. RECENT TAX CHANGES AND INDUSTRIAL DEVELOPMENT IN PENNSYLVANIA

Main Investigator: Kenneth G. Ainsworth, assisted by Herbert Dyer and John Hill.

Status of Research and Publications: Completed.

Agency: Allegheny College, Social Science Research Fund.

Previous Digest Report: 9:1-1

Research Problem. Recent changes in the tax system of Pennsylvania are evaluated for their possible influence on the location of industry among the states and within Pennsylvania.

Method of Study. State and local tax bills of twelve hypothetical corporations are estimated for 1953 and 1958 at 144 Pennsylvania locations. The changes in the tax bills are treated as changes in cost and for purposes of discussion are stated as percentages of total cost. Within Pennsylvania the geographic pattern of local tax bills for 1953 and 1958 is described by reference to the estimated tax bills at 34 city, 89 borough, and 21 township locations.

Major Findings. The state and local tax bills of manufacturing corporations were substantially reduced as a result of the changes in the tax system. The machinery and tools of manufacturers were eliminated from the local property tax base. The five mill capital stock tax was made inapplicable to manufacturers. On the other hand the corporate income tax was increased from five per cent to six per cent and there were numerous increases in property tax rates which were applied to the narrower base. The net effective reductions in the tax bills of manufacturing corporations, however, were very modest when considered in relation to total costs. The ratio of effective tax reductions 1953-1958 to total costs was computed for each of the hypothetical corporations and found to vary from less than 1/10 of one per cent to 6/10 of one per cent at the locations where the 1953-1958 tax reductions were the largest. These ratios are very small relative to the tax cost differences found by others to be a minor influence on the location of industry among the states. (See J. S. Floyd, Jr., Effects of Taxation on Industrial Location, Chapel Hill: The University of North Carolina Press, 1952 and Leslie E. Carbert, The Impact of State and Local Taxes in North Carolina and the Southeastern States, prepared for the North Carolina Commission for the Study of the Revenue Structure of the State by the Research Director of the Commission, 1956.) The ratios of effective tax cost changes to total costs are small in part because there were some modest increases as well as decreases in the taxes levied on manufacturing corporations but in a larger part because the entirety of state and local taxes is a small part of total costs and because of the deductibility of state and local taxes for purposes of computing federal corporate income tax liability. Speculatively speaking, it seems unlikely that any state could in fact shift the emphasis of its tax system enough to give its industrial sites a clear cost advantage relative to sites in other states.

Within Pennsylvania modest cost differences would be more likely to influence the location of industry because other things are likely to be more equal. Pennsylvania was divided into two regions for purposes of analysis. Within both regions and the state as a whole the local tax conditions were more nearly uniform in 1958 than in 1953 for all industries and for all kinds of locations (city, borough, and township). A rather regular tax pattern had developed by 1958. The cities had relatively high and the most nearly uniform local tax bills for all industries. The townships had relatively low local tax bills but demonstrated somewhat greater variety of tax conditions for all industries. The boroughs had some of the highest and some of the lowest tax bills and thus presented the greatest variety of local tax conditions for all of the industries. The greater uniformity of local tax conditions encourages entrepreneurs to concentrate on minimizing the costs of factors used directly in the production process and to be less concerned about the multitude of local tax conditions and the varying amounts paid toward the support of the public services provided for the general benefit of the community. (KGA)

2. RESEARCH NEEDS IN THE FIELD OF PUBLIC WORKS

Main Investigators: Robert D. Bugher, David J. Vargas, Earnest Boyce (consultant).

Status of Research and Publications: A preliminary draft of the final report has been prepared and submitted to the APWA Research Foundation Board of Directors for review.

Agency: American Public Works Association Research Foundation under a grant from the Ford Foundation. Staff assistance for a portion of the study was provided under contract by the Armour Research Foundation and the American Society of Planning Officials.

Previous Digest report: 8:2-1.

Research Problem. To determine research needs and priorities in the field of public works.

Major Findings. Conservative estimates indicate that public works officials are faced with the problem of providing urban facilities -- roads, mass transit, air transport, water supplies, sewage treatment, refuse removal, housing, recreation, irrigation, flood control, and many others -- for an additional 100,000,000 U. S. inhabitants by the year 2000. Rising costs brought about by demands for more services and requirements for better living standards are only one indication of the need for research in the public works field.

Some 28 major research project proposals have been outlined in the preliminary draft, covering such subjects as traffic planning and movement in urban areas; snow removal and ice control; utility planning and system modification; handling and treatment of solid, liquid, and gaseous wastes; urban planning, zoning, and open space requirements.

It is expected that the final report will be ready for distribution by mid-1963, following a comprehensive review by selected consultants who are familiar with each of the subject areas covered in the report. (DJV)

3. SOCIAL PROBLEMS AND SOCIAL COHESION

Main Investigator: Raymond L. Gorden.

Status of Research and Publications: Preliminary report available. 150 pp. mimeo. $1.50.

Agency: Antioch College, Department of Anthropology and Sociology.

Previous Digest report: 8:2-2.

Research Problem. The purpose of this study is to identify and measure certain dimensions of community cohesion which might be necessary-but-not-sufficient causes of illegitimacy, divorce, separation, delinquency and schizophrenia all of which correlate ecologically and increase toward the center of the city.

Previous Relevant Research. Many studies, too numerous to list here have found that in urban America the rates of crime, schizophrenia, divorce, separation, illegitimacy all increase by concentric zone as we approach the center of the city. Also many studies show that within a particular zone smaller areas (usually census tracts) stand in approximately the same rank order in their rates of all of these social problems. Furthermore, studies done by Clifford Shaw and Henry D. McKay in Chicago indicated that these small areas within the urban community maintained their relative rank in delinquency rates for decades even though the racial, ethnic or religious composition of the population had changed completely. These studies and others suggest that there is something about the general nature of the local community itself which either selects or produces people with mental, emotional or behavioral disorders.

There are many theories and empirical studies which deal with general dimensions of social cohesion, organization or disorganization which might be functionally related to social problems even though they are never considered to be social problems in themselves. Some of the concepts used to generate specific indices and hypotheses are the following: Merton's "anomie", Srole's "anomia", and Cloward's "availability of illegitimate means", Nettler's "alienation" and more general concepts such "informal social control", "intergenerational social distance", "family-school" integration, and "restriction of teenagers" were used to measure the amount of "social cohesion" in the community.

Hypotheses. The general hypothesis tested thus far in the study is that a census tract having the highest combined index of social problems will have less of each dimension of social cohesion than does the census tract having the lowest combined index of social problems. Ten specific hypotheses have been tested to date and reported in a preliminary presentation.

Method of study. The 62 census tracts in Dayton were assigned a rate of illegitimacy, divorce, separation, delinquency and schizophrenia. These rates were correlated with each other for the 62 tracts, the rates were also combined to obtain rates for three concentric zones and a composite index of social problems was obtained by combining the rates of all the social problems for each tract. Using this composite index of social problems the two tracts having the highest and lowest rates were selected. A random sample of households in these two areas was interviewed to measure (with Guttman scales and quasi-scales) ten dimensions of "social cohesion". Comparisons were made to find statistically significant differences between the amount of social cohesion in the two tracts to test the hypotheses which had been formulated in advance.

Major Findings. All social problem rates increased toward the center of the city. All census tract rates correlated positively with each other. Hypotheses supported: access to illegitimate means was higher in high-problem area; delinquency highest in area where there was least awareness by parents of pre-court cases of delinquency; alienation was higher in innercity (the high-rate area); anomia (Srole) was higher in innercity than in outercity; family-school integration was lower in innercity; intergenerational cohesion was lower in innercity; access to legitimate means was lower in innercity. The data weakly supported two more hypotheses, were inadequate for testing one hypothesis and clearly refuted one hypothesis. (RLG)

4. EFFECT OF WALSH - HEALY MINIMUM WAGES ON REGIONAL INDUSTRIES

Main Investigator: Ronald Charles Buehner.

Status of Research and Publications: Article published in Federal Reserve Bank of Boston's New England Business Review, July, 1962. Complete thesis available upon request from the Federal Reserve Bank of Boston. (Research Report #19, 1962).

Agency: Sponsored in part by the Federal Reserve Bank of Boston.

Previous Digest report: None.

Research problem. To assess the effects of the Walsh-Healy minimum wage determinations on interregional wage differentials, with specific reference to the New England situation.

Previous Relevant Research. (1) Maceshich, George and Steward, Charles T. Jr., "Recent Department of Labor Studies on Minimum Wage Effects." The Southern Economic Journal, XXVI (April, 1960), pp. 281-90. (2) Marx, Roy Lewis, "Wage Determination in Quasi-Public Employment: A Study of the Background, Administration, and Economic Effects of Wage Determinations Under the Davis-Bacon and Walsh-Healy Acts." Unpublished Doctoral Dissertation, University of Wisconsin, Madison, 1951.

Method of Study. U. S. Government and Department of Labor publications on the Walsh-Healy Act were reviewed. An analysis was made of average wages in four United States regions; New England, Middle Atlantic, Southeast, and Pacific, before and after administration changes in a ten year period. These figures were calculated on an annual basis for all 2-digit industries (Standard Industrial Classification) and for some 3 or 4-digit industries where such figures were available. Analysis was also made of pressure group activities in respect to the administration of the Walsh-Healy Act.

Major Findings. (1) The Walsh-Healy minimum raises the wages of low paid workers when this public contract minimum is set above the level established under the Fair Labor Standards Act; however, only a quarter of the industry's minimum set by Walsh-Healy are higher than those set by the Fair Labor Standards Act. (2) The immediate wage effect of a higher minimum is to raise the wage of sub-minimum workers; however, in the long run, the former structure is restored as an equivalent dollar increment is passed on to the higher wage earners. (3) An administrative change in minimum has little effect on a regional industry's competitive position because of the tendency for the whole structure to shift upward in time; low wage areas remain low relative to other areas. (4) The wage difference between regions is not necessarily narrowed; for in the period immediately following a change the differential tends to remain constant, and after that, the trend of the differential, whether increasing or decreasing, is independent of any change in the public contract minimum. (5) Regional pressure groups cannot change their regions relative position as long as determination is made on a nation-wide basis. (ECG)

5. A STUDY OF INTER-CITY WAGE DIFFERENTIALS

Main Investigator: Scott E. Pardee.

Status of Research and Publications: Research completed. Article published in the Federal Reserve Bank of Boston's New England Business Review, February, 1962. Doctoral Thesis (M.I.T.), Research Report to the Federal Reserve Bank of Boston, No. 20, 1962.

Agency: Sponsored in part by the Federal Reserve Bank of Boston.

Previous Digest report: None.

Research Problem. To devise adequate statistical techniques and to collect data on wage and fringe benefits to supplement and refine published data.

Hypotheses. Inter-regional wage differentials are not solely regional in origin, but are also influenced by the industrial composition of the region. Statistical techniques can be devised to isolate the area from the industry effect.

Method of Study. (1) Inter-city wage comparisons were refined by the construction of hypothetical firms with fixed skill requirements thus enabling the derivation of comparable wage bills. (2) Regional effects on average earnings were isolated by adjusting for differences in industry composition.

Major Findings. (1) New England's regional effect was to lower wage costs. (2) The "industry" and "area" effect were isolated for 20 major U.S. cities indicating a wide disparity in these two effects between cities. (3) Comparable wage bills for a hypothetical metal working firm were constructed for 19 major cities indicating that Boston had relatively low wage costs. (4) The inclusion of fringe benefits in inter-city comparisons did not make a substantial difference in the relative standings of wage costs of these cities. (ECG)

6. INCOME REDISTRIBUTION IN FEDERAL GRANTS-IN-AID

Main Investigator: George A. Bishop.

Status of Research and Publications: Article published in Federal Reserve Bank of Boston's New England Business Review, June, 1962.

Agency: Federal Reserve Bank of Boston.

Previous Digest report: None.

Research Problem. To what extent is income redistributed by state as a result of payment of Federal grants-in-aid and the levying of taxes to support that aid? How important is interstate redistribution in the determination of these programs?

Previous Relevant Research. Same problem examined in M. O. Clement, An Economic Evaluation of the Federal Grant-in-Aid Programs in New England, 1953-1958, (Federal Reserve Bank of Boston Research Report No. 15, 1961) but for earlier years before the Federal highway program and earmarked highway user taxes became significant. Estimates for earlier years have been made by other persons and organizations.

Hypotheses. Federal grants-in-aid and the taxation necessary to support them do redistribute income from richer to poorer states, but this is only one among several objectives of these programs. For all grant programs, including the highway program, interstate redistribution is a relatively minor effect.

Method of Study. Estimated tax burden by state (estimates made by Tax Foundation, Inc.) compared with aid payments by state (apportionments in the case of the highway program).

Major Findings. For budgetary grant-in-aid programs interstate redistribution amounts to about one-quarter of the funds involved. Highway aid (the trust fund program) involves less redistribution--only about 12 percent of the funds involved represents interstate redistribution.

In general the northeastern states and those bordering the Great Lakes contribute a larger share of taxes than they receive in grants. The central, southern, and mountain states are those receiving a larger share of grants than they contribute in tax burden. California, Texas and Florida are the exceptions in the South and West, while Vermont, New Hampshire, Maine and Rhode Island are the exceptions in the Northeast. (ECG)

7. PERFORMANCE STANDARDS FOR SPACE AND SITE PLANNING FOR RESIDENTIAL DEVELOPMENT

Main Investigators: H. Peter Oberlander, W. G. Gerson, Ray Goldsworthy, Arthur Boyd and G. Harwood-Barnes.

Status of Research and Publications: Investigation into factors determining the spacing of residential buildings is presently concerned with natural light as a characteristic of space control. A study of fire, the first characteristic considered, is now complete. Other characteristics to be investigated include air, noise and privacy.

Agency: University of Columbia, Department of Community and Regional Planning and the School of Architecture, for the Division of Building Research, National Research Council, Ottawa.

Previous Digest report: 7:2-1, 8:1-2, 8:2-4, 9:1-2.

Research Problem. The problem is to develop rational criteria based on the different environmental components of fire, air, noise, etc., so that reasonable and meaningful space standards might be determined and framed into a performance system for evaluating and presenting spacial relationships between buildings.

Previous Relevant Research. An annotated bibliography of the subject literature was prepared and published by the sponsors in August 1961. A report entitled, "Performance Standards for Space and Site Planning for Residential Development" followed. This report contains the results of investigation of site and space controls, regulations and standards and the hypothesis for a proposed technique for space and site planning in residential areas based on the concept of a bonus/penalty performance standards system.

A Technical Paper will be published on this report by the National Research Council Division of Building Research during October 1962. The latest report to be completed, entitled, "Space Between Buildings as a Means of Preventing the Spread of Fire", consists of an evaluation of selected residential areas according to data from recent basic research by the National Research Council, Division of Building Research.

This investigation will be covered in an Internal Report to be published by the Council later this year.

Method of Study. The method of study has consisted of systematic investigation and evaluation of space and site planning criteria by the direct application of information to selected residential test areas. (HPO)

8. A CRITICAL EVALUATION OF RECENT EXPERIENCE IN TEACHING COMMUNITY AND REGIONAL PLANNING TO STUDENTS FROM RECENTLY INDEPENDENT COUNTRIES

Main Investigator: H. Peter Oberlander.

Status of Research and Publications: In process.

Agency: University of British Columbia, Department of Community and Regional Planning, under sponsorship of Leverhulme Trust Fund, London, England.

Previous Digest report: None.

Research Problem. To evaluate the teaching of urban planning to students from newly independent countries and to develop a guide for future opportunities to assist such students to acquire valid and essential skills in dealing with problems of urban growth in their own countries.

Method of Study. Investigation of experience with planning education at the University of British Columbia and the Institute of Community Planning at Kwame Nkrumah University, Ghana. Assembly of information on similar experience at other planning schools in North America which are members of the Association of Collegiate Schools of Planning. (HPO)

9. THE IMPACT OF HIGHWAY DEVELOPMENT ON LAND USE CHANGES

Main Investigators: John N. Jackson and John Northey.

Status of Research and Publications: Pilot Project started in Summer, 1962.

Agency: University of British Columbia, Department of Community and Regional Planning.

Previous Digest report: None.

Research Problem. To examine in detail the impact of proposed highway location and its ultimate execution in relation to changes in land use immediately affected by it.

Method of Study. The Lower Mainland of British Columbia and the new thruway currently under construction there will be used as a test case. The emphasis in this project will be on methodology and techniques of documenting land use changes and relating them to proposals for highway locations. The method includes a systematic mapping of land use before and after the decision to locate a freeway was made and executed as well as a statistical analysis of municipal records regarding land values, land ownership and land transfers and assessment procedures. (HPO)

10. INTERACTION BETWEEN DISCRIMINATION, INTERREGIONAL MIGRATION AND REGIONAL ECONOMIC DEVELOPMENT

Main Investigator: Richard D. Raymond

Status of Research and Publications: Doctoral Dissertation has been presented for acceptance.

Agency: Brown University, Department of Economics, under a grant from the Committee on Urban Economics, Resources for the Future, Inc.

Previous Digest report: 7:2-3, 9:1-5.

Major Findings. This dissertation represents an attempt to measure changes in the relative economic status of the Negro over a period of time and to arrive at the determinants of this relative economic status at a given point in time. Concern is with the Negro as an economic activity unit rather than as a welfare unit, and thus the relative economic status is generally measured by the ratio of Negro male median income to White male median income.

First, an attempt is made to improve upon previously existing estimates of the progress made by the Negro during the 1940's. Changes in the Negro's position are investigated on both a national and a regional (South vs. non-South) basis. It is found that the Negro's position improved considerably in both the South and the nation as a whole, but that the Negro was unable to improve greatly his relative economic status in the North.

The effects of changes in the racial distribution of population are investigated in an attempt to determine the causes underlying the Negro's progress during the 1940's. A statistical analysis shows that changes in the distribution of population between the North and the South were independently responsible for approximately one half of the progress registered by the Negro. The rural-urban population changes within the individual regions seem to have had little effect upon the relative economic status of the Negro.

The possible effects of the tight labor market conditions of the 1940's, legislative inducement and the changing nature of the job composition within the economy are also considered. It is concluded that each of these factors was undoubtedly important, but that the data available did not allow an accurate measurement of the effects of each individual factor. An attempt is also made to show that the Negro movement to the largest cities was not necessarily a factor tending to improve their relative economic status.

A cross-section study of the Negro's relative position in the nation's SMA's in 1949 attempts to isolate the most important factors affecting the relative economic status of the Negro. The investigation proceeds on both a national and a regional basis. As was expected, the percentage of Negrc in an SMA was important in the South and the nation as a whole, but it did not seem to have a strong effect in the North. The industry mix exhibited by an SMA proved important in all three geographic divisions, although its effect was least in the South. The industry mix of an SMA was arrived at by measuring the importance of a subgroup of industries known to be favorably inclined towards the hiring and upgrading of Negro labor. A multiple regression analysis yields results which indicate that, within urban areas, the North-South difference in the relative economic status of the Negro is largely due to the high percentage of negroes and the unfavorable industry mix of the Southern SMA's.

Evidence is presented which points up the effect which racial differences in a rural-urban population distribution within an SMA may have upon the racial income ratio in the SMA. Specifically, it is shown that Southern Sma's having a high percentage of Negroes also tend to show a high concentration of Negroes, relative to Whites, in rural areas. Thus, because of the lower incomes prevalent in rural areas, a part of the effect generally attributed to the percentage of Negroes seems to be properly the result of this difference in rural urban population distribution by race. This phenomenon also cast doubt upon the ability of differences in the racial educational ratio to explain the variation in the racial income ratio. (RDR)

11. ANALYSIS OF REAL ESTATE MARKET BEHAVIOR FROM MULTIPLE LISTING BUREAU DATA IN THE LOS ANGELES AREA

Main Investigator: Fred E. Case

Status of Research and Publications: A preliminary draft has been completed and publication is planned by the Real Estate Research Program.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program.

Previous _Digest_ report: 9:1-15.

Major Findings. The results of the study indicate that within Los Angeles County there are differing types of real estate submarkets. The strongest activity and the highest average single-family home sales prices are found in the suburban areas. Slower market activity and lower home prices are found in central areas. Overall multiple listing activity tends to follow the pattern of the real estate market in Los Angeles County. During the study period from 1953 to 1960, there were indications that lengthening periods of time from listing to sales, and higher percentages in the cut from asking to sales price were forerunners of a weakening real estate market. (FEC)

12. COMPARISON OF CHANGES IN HOUSE SALE PRICES WITH ASSESSED VALUES IN LOS ANGELES

Main Investigator: Robert M. Williams

Status of Research and Publication: Completed and to be published in the _Appraisal Journal_.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program.

Previous Digest report: 9:1-16.

Major Findings. Using data for a fixed sample of 38 single family residences scattered throughout Los Angeles County, trends were established in the ratio of assessed value to appraisers' estimates of market value since 1940. The analysis shows that the average assessment ratio declined sharply from 1940 to 1950 but has declined only slightly since 1950. The sample data also show that the assessed value of land as a percent of total assessed value of single family dwellings has increased significantly since 1940. Finally, the paper discusses some important implications of trends in assessment ratios and the proportion of total property values accounted for by land. (RMW)

13. THE UNANCHORED SUBDIVISION AND LEGAL PROBLEMS IN THE INTERSTATE SALE OF PROMOTIONAL SUBDIVISION LAND

Main Investigators: C. Edward Elias, Jr., William D. Warren, John M. Carmack, and John M. Vincent.

Status of Research and Publications: Research has been completed, and preliminary results are available in mimeographed report.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program under sponsorship of Commissioner of Real Estate, State of California.

Previous Digest report: None.

Research Problem. To describe the market for land located in remote areas in terms of developers' promotional practices; to identify the information required by the intelligent investor in making a decision to invest in such land; and to determine the legal position of such investors at present and suggest some protective measures.

Major Findings. The marketing of speculative land today centers around land located in remote areas, and marketing techniques are similar to those used in promoting the sale of goods on installment terms. To sell land at minimum down payments and low monthly payments, the developers often must find and acquire land located in remote areas. Individuals who are buying for price appreciation rather than use need certain information about the total supply of land similar in location to their purchases and require knowledge on the amount of price appreciation which has already occurred between the developers' costs and his selling price. The investment problems are similar to those faced by the potential purchaser of securities; securities regulations thus might furnish a useful basis for revising current regulations relating to both intra and inter-state sales of speculative land. Information provided the investor currently via public reports is not sufficient. The degree of protection to the investor given by states through statutes of various kinds was investigated and found to be inadequate. (CEE)

14. URBAN RENEWAL IN EUROPE--ITS EMERGENCE AND POTENTIALS

Main Investigator: Leo Grebler.

Status of Research and Publication: Manuscript has been completed, and has been accepted for publication by the University of Pennsylvania Press.

Agency: University of California, Los Angeles, Sabbatical leave project. Field tour supported by Ford Foundation.

Previous Digest report: 9:1-13.

Major Findings. Only a few West European countries have a national urban renewal program comparable to that of the United States, but many of them have resumed their prewar slum-clearance and housing programs and are now considering legislation embodying the broader concept of urban renewal. Projects already completed or under construction are mostly undertaken in connection with traffic improvements or the expansion of downtown areas. Investment interest in central area redevelopment is exceedingly strong. The reconstruction of war-damaged cities, a special kind of urban renewal presenting legal, financial, and planning problems similar to those in peacetime renewal, is nearing completion. The study also provides some interesting contrasts between the United States and European countries in the use of the power of eminent domain for renewal and in arrangements for relocation of displaced families and businesses. (LG)

15. A PRELIMINARY STUDY OF THE ECONOMIC GROWTH AND STRUCTURE OF THE LOS ANGELES REGIONAL ECONOMY

Main Investigator: Leland S. Burns.

Status of Research and Publication: A report has been completed and submitted to the California State Division of Highways.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program, under sponsorship of California State Division of Highways.

Previous Digest report: 8:1-17.

Major Findings. The preliminary study consists of two principal elements supporting the on-going Los Angeles Regional Transportation Study (LARTS). The first is an analysis of time-series data for population, employment, and income in the five Southern California Counties which comprise the Los Angeles Region. A step-wise regression technique was devised for making extrapolations, based on existing forecasts, for five-year intervals to 1980. The second principal section is a prospectus for a major economic study of the region. This prospectus reviews analytical techniques appropriate for such a study, and makes recommendations on the nature of projects and their scheduling. Although the major economic study would not be linked directly with the transportation study, it would provide certain necessary inputs to a land-use allocation model. In addition to its value as an information piece, a primary aim would be the sharpening of planning decisions. (LB)

16. DETERMINANTS OF RESIDENTIAL CONSTRUCTION

Main Investigators: Sherman Maisel and Leo Grebler.

Status of Research and Publications: The project has been completed, and is in press.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program, under sponsorship of Commission on Money and Credit.

Previous Digest report: 9:1-12.

Major Findings: Neither the verbal-qualitative propositions on how the market for residential building operates nor the statistical-econometric models developed to date have produced a complete, internally consistent, and accurate framework that would allow a theory of market behavior to be tested, and provide a basis for reasonably dependable prediction. Moreover, the available data themselves are in many respects faulty and often unusable for empirical tests of theoretical statements, and much of the information needed for such tests is yet to be developed. (FM)

17. THE ANATOMY OF TURKISH CITIES: A COMPARATIVE STUDY OF LAND USE IN SIX MEDIUM-SIZED URBAN PLACES

Main Investigator: Gerald W. Schultz.

Status: Ph. D. Dissertation, in final stages; expected publication as one of the Foreign Research Program Reports of the Division of Earth Sciences, National Academy of Sciences.

Agency: Clark University, Graduate School of Geography, Field work supported by Division of Earth Sciences, National Academy of Sciences.

Previous Digest report: None.

Research Problem. Contemporary Turkish cities have been the subject of scant geographic research. Like urban places in other underdeveloped countries of Asia and the Middle East they are growing rapidly and significant changes are occurring in their internal structures. This study focuses on the question of how urban space is organized, used, and arranged within Turkish cities. The main objective was to arrive at generalizations concerning their anatomy that extended beyond conditions found in a particular city.

Hypotheses. Basic to this research are the assumptions that the city is an ordered and lawful structure, that a systematic comparative examination of a representative group of urban places will reveal recognizable consistencies, and that these consistencies, when considered together, can give a valuable insight into the urban geography of the contemporary Turkish city.

Method of Study. This study is empirical in nature and comparative in approach. It is based on primary data collected first-hand in the field. The first step was the selection of a small number of medium-sized urban places, defined as cities with populations of between 20,000 and 100,000 inhabitants each. On the basis of representativeness in regard to regional location, age, population changes, and functional characteristics the following six cities were selected for detailed analysis: Antalya, Adapazari, Aydin, Diyarbakir, Elaxig, and Kayseri. In order to obtain comparable areas a standardized method of delimitation was applied to each city. For the urban areas thus defined, three aggregate features -- areal extent, shape, and proportions of developed area in various land use categories -- were examined and compared. Attention was then turned to an analysis of the distribution of major types of land use within the six urban areas. Systematic comparisons were made in regard to the general arrangement, zonal composition, and mean centers of gravity of each type, after which an attempt was made to relate them to each other as a meaningful, structured whole.

Major Findings. In spite of the fact that each of the six cities is to some extent unique in detail, they were found to resemble each other in a significant number of respects. Findings concerning urban space in its totality were as follows: The amount of urban land used by each city is small by Western standards, ranging from 1.2 to 2.4 acres per 100 inhabitants. The shape or outline of the urban area is relatively compact although active radial expansion is occurring along the main access routes. Considerable agreement was found to exist in the proportional amounts of different land uses in the six cities. An average of two-thirds of the developed urban area is used for residential purposes and streets; the remainder is about equally divided between work and social areas. One unexpected finding concerning the importance of specific types of land use was the relatively large proportion of the developed area occupied by modern factories and new multiple dwellings illustrating the mixture of old and new which today makes up the Turkish city. The land use proportions were also found to be closely related to those in American cities. On the basis of this study the allocation of urban space among the various uses has a consistency which seems to transcend individual cultural areas. Findings concerning the spatial distribution of individual land uses within each city showed a definite pattern arrayed around the original core area. When the individual uses are considered as a whole the internal configuration assumes a simple arrangement of three concentric zones -- a central core area, a middle residential zone, and an outer fringe dominated by gardens and peasant housing. The last two zones are interrupted in some quarter of the city by a wedge-like sector composed for the most part of new housing, vacant land, and factories. Important among the factors causing individual variations among the six cities were differences in the number of inhabitants and in the size of the historic city. (REM)

18. CIVIC DESIGN STUDY OF THE ROCKY MOUNTAINS AND GREAT PLAINS AREA

Main Investigators: Gordon Ingraham, Glenn Brooks, Robert Brown, Bernart Arnest, Kenneth Curran, Louis Geiger, Paul Kutsche, Douglas Mertz, Fred Sondermann, and Van Shaw.

Status of Research and Publications: The study has been completed and a report published (limited edition).

Agency: The Colorado College, under sponsorship of the Rockefeller Foundation.

Previous Digest report: None.

Research Problem. The problem was loosely defined as a study to contribute ideas, ways and means whereby the mountain-plains communities might find an enriched future direction for their living arrangements and patterns.

Method of Study. In approaching the study the following premises were made: man is affected and influenced by his environment; environment is the dynamic and ever-changing aggregate of physical, biological and social factors; the Rocky Mountains and Great Plains area forms a semi-arid hinterland.

Based on these premises the study identified physical environmental factors, population centers, historical patterns, key problems confronting the area today, techniques presently available for controlling and changing these patterns as well as visible limits on the various roles of public and private institutions.

The area involved was that land west of the 98th meridian or west of the 20" rainfall line to the Sierra Nevadas with emphasis on three population complexes--the Northern Plains--the Frontal Range--the Southwest Plains.

The work included the gathering of available data pertaining to the area and its patterns--travelling throughout the area as well as travel to other U.S. centers of study and research on regional problems--and the use of seminars in each of the population complexes to determine first hand information and ideas.

Major Findings. The major findings culminated in a statement on the mountain-plains area and suggested solutions which fell into two major categories: (1) For optimum future development, the mountain-plains area should concentrate on its natural advantages as a specialized service and recreational area for the rest of the nation. Except in special cases, communities should not count on large scale manufacturing development or the creation of highly diversified economies. (2) The area should serve as a model for the advancement of other semi-arid regions of the world and as a laboratory for experiments in living designs for these other regions. What we do to develop the mountain-plains area will be watched with great interest by such places as Africa and the Middle East.

Under these suggested solutions a number of potentials were outlined which included: the establishing of wholly new cities to take care of predicted population expansion; advanced scientific research centers; the development of educational institutions and fine arts programs to service widely dispersed populations; communication and transportation devices and inventions especially geared to rapid inter-urban service; the development of financial institutions suited to the low rate of return for agricultural loans; exploratory mineral and fossil fuel development for emergency reserves; the extension of recreational forms; communities for retired people; centers for language and cultural understanding particularly with relationship to the Southern Hemisphere; the development of the area as a model for semi-arid lands with reference to land utilization; rural reconstruction programs, new nethods and techniques for agricultural activity.

In conclusion the report outlined a three point priority of need to start such directions. This priority of need was the initiation of a neutral institution--a mountain plains research center--to promote communication in the area; to encourage research into the specific problems of the area; and to act as a central reference library for the entire area. (GI)

19. A THEORY OF POPULATION DISTRIBUTION

Main Investigator: Arnold M. Faden.

Status of Research and Publications: Doctoral dissertation, in progress; expected date of completion, Spring 1963.

Agency: Columbia University, Department of Economics.

Previous Digest report: 9:1-19.

Research Problem. To explain the size and spatial distribution of population agglomerations by means of location theory.

Method of Study. Geographers have recorded the correlations between the distribution of population and the distributions of topography, climate, water, soils, minerals, and other natural features; but many anomalies remain. In particular, there have been great redistributions of population over time with no important changes in natural features in many places. We are developing a series of models to explain variations in the relative growth of regions over time. The emphasis will be on migration rather than differential natural increase, the former usually being the dominant factor in redistribution. People are assumed to move to higher income and/or amenity values, the frictions being lack of knowledge and cost of transportation (including institutional barriers). The explanation of the pattern of these values over space and time becomes the main problem.

We may distinguish those forces which initiate growth in a region, those which sustain it, and those which bring it to an end. (Any given region may go through several of these cycles). In the first category belongs the theory of pioneer settlement, which may be induced by such factors as discovery of new resources, overspill from adjacent regions, and the bridging of empty territory by transport routes. The same factors induce interstitial settlement and growth of already settled but stagnant regions. In the second category belongs the general rubric of economies of scale, including the self-stimulating and cumulative processes of transport and utility construction, industrial development, in-migration and residential development. Development in adjacent regions may have a net stimulating or inhibiting effect, depending on circumstances. In the third category belong the factors of encroachment on the resources base, congestion and the competition of other regions.

The need is to bring these processes--historically well described--into analytic form, so as to make predictions and more exact causal specifications. While the historical background will be kept in mind in constructing the models, the emphasis will be on the theory. The regions in the models may be of any size, from the neighborhood on up, since it is believed the models involve forces which operate at every scale of magnitude.

The parameters in the models will involve institutional conditions, such as land laws, and accretions to knowledge, such as mineral discoveries-especially such as alter the pattern of transport and communication costs: institutional rate setting, the airplane, etc.

It is hoped that the models will yield as predictions some well-known cross-sectional results, such as the paretoan distribution of city sizes and the central place hierarchy. (AMF)

20. THE COMMUNITY ECONOMIC BASE STUDY

Main Investigator: Charles M. Tiebout

Status of Research and Publication: To be published in December, 1962 as Committee for Economic Development Supplementary Paper #16.

Previous Digest report: None.

Research Problem. This study describes what an economic base study is, explains how communities can profit by such a study, and presents guidelines for conducting this kind of research on a limited budget.

Major Findings. The concept of the economic or export base of a community has been used as a tool in planning, estimating tax revenues, and in solving other problems faced by local communities. Many economic base studies have failed to incorporate the concepts of national income analysis, and have thus been subject to extensive criticism.

The study discusses the problems of measuring the various demand sectors such as exports, local consumption and investment. Indirect methods such as location quotients are shown to be less satisfactory than rather simple survey techniques.

At a conceptual level the study considers the base concept in both the short- and long-run. Major attention focuses on the local consumption sector and its relation to changes in income and employment. Finally, alternative methods of forecasting community growth are considered.

The study supports the view that economic base studies do have a foundation in national income analysis and are empirically feasible at modest cost. (CMT)

21. COMMUNITY ASPECTS OF HOUSING FOR THE AGED

Main Investigators: Glenn H. Beyer, Marilyn Langford, and Sylvia Wahl.

Status of Research and Publications: Research is completed with exception of publishing some manuscripts. Publications already issued are "Housing Requirements of the Aged - A Study of Design Criteria" (no author), 1958, out of print; "Economic Aspects of Housing for the Aged," by Glenn H. Beyer (1961); "Community Aspects of Housing for the Aged," by Marilyn Langford (1962). Publications to be issued include "Living and Activity Patterns of the Aged" (1963), "Housing for the Aged in New York State" (1963), and "Shelter and Care of the Aging: A Review of 13 Western Countries" (1963).

Agency: Cornell University, Center for Housing and Environmental Studies, under sponsorship of the Ford Foundation and the Cornell University Agricultural Experiment Station. International aspects in cooperation with the Bouwcentrum, Rotterdam, The Netherlands.

Previous Digest reports: 5:2-8; 6:1-12; 8:2-18.

Research Problem and Method of Study. Data were collected through personal interviews with 5200 persons aged 65 and over in 4 survey areas, Chicago, Los Angeles, St. Louis, and upstate New York. Case studies were made of approximately 40 aged households in upstate New York. Personal interviews were conducted with leading private and public individuals and officials in principal Western European nations and United Kingdom.

Major Findings. The report focuses on the relationship of the environment to the lives of the aged, particularly with regard to personal contact and the use of community facilities.

It was found that respondents had the greatest amount of contact with relatives, especially children. It was relatives who stopped regularly and frequently and who were sources of help in an emergency. Contact with neighbors and friends was less frequent. The factors which increased personal contact were long residence in the neighborhood, living in one's own household, ownership of dwelling unit, and residence in small communities. Single or widowed men had fewer social contacts than did women or couples.

One third of the respondents reported contact with the community on the previous day. This contact, which was mainly for business and shopping purposes, was greater for those living in their own households than those in the households of others. As the distance from facilities increased, the proportion of respondents desiring proximity increased; however, case study respondents (who lived in small communities) tended to shop away from their neighborhoods even though stores were close by. The use of cars for transportation was general. Forty percent of the respondents owned cars and even those not owning cars generally were transported in cars by others. Public transportation was used infrequently and mainly by widowed or single women living alone or with persons other than children.

It was found that several general factors influence the role of the community in the lives of the aged. These are: the degree of disruption in living patterns created by change, the role of relatives in the lives of the aged, the tendency to continue patterns of community use formed earlier in life, characteristics of communities and their populations, and concepts which the community holds of the aged, particularly those which are embodied in community planning concepts and legal considerations. (GHB)

22. HOME BUYING AND FINANCING PRACTICES.

Main Investigator: Glenn H. Beyer, Marilyn Langford and Sylvia Wahl.

Status of Research and Publications: Continuing study. Fifth Annual Report - 1961, entitled "Home Buying and Financing Practices in Upstate New York, 5-Year Summary 1957-1961," by Marilyn Langford and Sylvia G. Wahl. Available from Mailing Room, Stone Hall, Cornell University, Ithaca, New York.

Agency: Cornell University, New York State College of Home Economics in association with the Center for Housing and Environmental Studies.

Previous Digest reports: 4:1-10; 5:2-9; 6:1-11; 8:2-17.

Research Problem. To study a number of factors that influence home buying and financing in upstate New York.

Method of Study. Thirty-six leading institutions in 19 upstate New York cities reported information on first mortgages for both new and existing single-family dwellings. Approximately 14,000 mortgages covering the 5-year period were analyzed.

Major Findings. The majority of home buyers in the 5-year period were renters under 35 years of age who were buying homes for the first time, usually in a community in which they lived before the purchase. Professional and managerial workers purchased over half of the houses reported. Managers tended to have owned previously in a larger proportion of cases than had professional workers.

Houses built 20 years ago or more had more space than those built more recently; however, houses built during the past 2 years were larger than in any year since World War II. Although old houses generally provided more space for a given amount of money, the proportion of houses with 1500 square feet or more of floor space did not increase significantly unless houses were 30 years old or older.

Conventional mortgages were used to finance more homes than either FHA-insured or VA-guaranteed loans and to finance a larger proportion of new houses and expensive ones, while FHA and VA financing emphasized existing houses and those at lower price levels. (GHB)

23. THE SHAPES OF AMERICAN CITIES: AN INVESTIGATION OF SELECTED PARAMETERS OF POPULATION DISTRIBUTION FOR SELECTED CITIES IN THE UNITED STATES IN 1940, 1950, AND 1960.

Main Investigator: Barclay G. Jones.

Status of Research: In process.

Agency: Cornell University, Center for Housing and Environmental Research, Division of Urban Studies, supported by a grant-in-aid from the National Science Foundation.

Previous Digest report: None.

Research Problem: The paucity of empirical data on the physical configurations of urban populations and activities impedes the development of reliable theory and the making of useful predictions in all of the social sciences which are interested in urban problems. These data are not readily available to researchers because of the lack of appropriate measures which condense or summarize the data into comprehensible form. However, measures that appear promising exist in the literature but have never been fully tested nor applied on a large scale. This project proposes further testing and applying of selected summary measures by an empirical investigation of population distribution in selected tracted cities of the United States for all years for which such data were published.

Previous Relevant Research. There is a long history of development of similar parameters dating from Hilgard and Walker in the 1870's. Bibliographies have been provided by Sviatlovsky and Eells (1937), Duncan (1957), and Jones (1961). Previous related work by the investigator has been reported in the Digest in 8:1-53 and 8:1-3.

Method of Study. Several of what appear to be the most promising parameters of population distribution will be applied to eight cities in the United States for each of three years: 1940, 1950, and 1960. The purpose is to gain knowledge as to how these parameters change in value from city to city and from year to year, in order to assess the sensitivity of the parameters in describing changes and differences in form. (BGJ)

24. PLANNING AND ARCHITECTURE IN EASTERN EUROPE SINCE WORLD WAR II: POLAND

Main Investigator: Jack C. Fisher.

Status of Research and Publications: In process. The material is in process of translation and editing to form a monograph on the subject.

Agency: Cornell University, Center for Housing and Environmental Studies, Division of Urban Studies, supported by grants from the Center for International Studies and the College of Architecture, Cornell University.

Previous *Digest* report: None.

Research Problem. The interchange of cultural information between countries of the Soviet bloc and the West has not been at as high a level as the exchange of scientific information. The breakdown has been particularly acute with respect to the design of physical environment, architecture, and urban design. These arts have never received the serious attention they warrant from American scholars and American research centers concerned with bloc activities. Whatever the causes of neglect in the past, there is particular interest now in a survey of recent activity in the ordering of the visual environment, since new ideas have emerged under conditions of somewhat greater political and financial liberality.

Many of these ideas may be of relevance to the solving of similar problems in the United States and the rest of the world. Thus, it seems worthwhile at this time to survey East Europe and the Soviet Union systematically to identify the most able designers and to document the most creative solutions to urban visual problems.

Method of Study. The first phase of the project will be concerned with gathering and publishing information concerning urbanization and planning and design objectives, methods, and practice in Poland. Field work in Poland consisting of several trips has been completed. On the basis of this first hand knowledge of planning and practitioners a series of papers on important aspects by key individuals is being assembled. Original papers are being prepared. The outline and content have been worked out in cooperation with official Polish academic and planning organizations. (BGJ)

25. LONG RANGE NEEDS AND OPPORTUNITIES IN NEW YORK STATE

Main Investigators: Burnham Kelly and Barclay G. Jones.

Status of Research and Publication: Work completed, published in mimeographed form in 2 volumes.

Agency: Cornell University, College of Architecture, under contract to Office of Regional Development, State of New York.

Previous *Digest* report: None.

Research Problem. The study investigates the impact of a changing technology on New York State and the policy implications of this impact. Changing technology makes its impact manifest in the redistribution of population, of employment opportunities, and, generally, of economic activity. The three topics investigated were: (1) How may the areas of growth and areas of decline be identified; what are the ranges of problems characteristic of each of them; what policy alternatives exist at the state level to ameliorate these problems? (2) Rural and vacant lands are crucial to an understanding and definition of metropolitan and regional districts. They are essential adjuncts to urbanized areas for a number of purposes including watersheds, milksheds, sources of fresh produce, and recreation. What overall extent and changing patterns of such areas will be required by changing population distribution, and what kinds of policies are appropriate with respect to them? (3) What mechanisms of land use control, agricultural zoning, tax policy, purchase or other restrictions of development rights, and at what levels of government are desirable to implement policies regarding patterns of population and economic activity distribution, and what role does the state have with respect to them?

Method of Study. Within the limited time and scale of the investigation the method of study chosen was to pursue a number of sub-topics by means of a series of working papers prepared by individual scholars who had recently engaged in related research activities. The working papers were summarized, edited, and rewritten combining, in addition, less formal contributions made by several other scholars. The resulting concise document, a summary report, comprises one volume. The second volume contains the original working papers which consitute an appendix to the summary.

Major Findings. Broad trends in land use changes and shifts in the distribution of population and economic activity are identified and related to institutional and technological innovations. Economic and demographic growth, development, change of composition, and shift of location are found to be dynamic and characterized by fairly regular geographic patterns. In contrast, political units and organizational structures are found to be relatively static. The State is shown to have a major role in achieving a situation of optimum flexibility and adaptability to encourage and assist change and ameliorate dislocation and loss. More detailed and coordinated continuing analysis of sub-regional economic and demographic information is urged as a basis for positive policy determination and planning to facilitate adaptability to take maximum advantage of change and minimize the penalties associated with it. (BGJ)

26. UNIVERSITY-CITY JOINT VENTURES IN URBAN RENEWAL

Main Investigator: Kermit C. Parsons

Status of Research and Publication: In progress. Articles forthcoming in the Journal of Higher Education in 1963.

Agency: Cornell University, College of Architecture, Department of City and Regional Planning, with the assistance of a Ford Foundation Cornell Public Affairs Research Fund Grant.

Previous Digest report: None.

Research Problem. To identify and describe the organizational form and functions of institution sponsored development corporations at several urban universities; to describe their effect on urban renewal programs and their methods of operation in city and neighborhood renewal activities.

Method of Study. Collection of data and interviews with city, university, development corporation and neighborhood organization officials in New York City, Chicago, Philadelphia, and Cleveland. (KCP)

27. UNIVERSITY CAMPUS PLANNING AT CORNELL UNIVERSITY, 1865-1935

Main Investigator: Kermit C. Parsons.

Status of Research and Publication: In process. Completion expected in August, 1963. A monograph on the study will be prepared.

Agency: Cornell University, College of Architecture, Department of City and Regional Planning, supported by grants from the University.

Previous Digest report: None.

Research Problem. The study will trace the history of campus development policies and planning efforts with an emphasis on the influence of educational program and administrative policy on the form of the campus.

Method of Study. Study of correspondence and documents in the Cornell Archives and Regional History Collection. (KCP)

28. ECONOMIC ANALYSIS OF THE WILMINGTON METROPOLITAN REGION WITH EMPHASIS ON ITS CORE AREA

Main Investigator: Frederick Durr

Status of Research and Publication: Project inaugurated September 1, 1962.

Agency: University of Delaware, Division of Urban Affairs under contract to Greater Wilmington Development Council.

Previous Digest report: None

Research Problem and Method of Study. (1) Make a detailed analysis of the Wilmington Metropolitan Region's economy in terms of its main functional sectors--business, household, and governments--and their relations to each other and to the outside world. This analysis will provide not only a current cross-section view of how the region's economy works, but also historical background to the extent required for an understanding of present conditions and trends. This work will provide the essential groundwork for the appraisals of future prospects that appear under other topics below. (2) In cooperation with the Greater Wilmington Development Council and its corporate supporters make an intensive study of the local and regional impact of the larger business and industrial firms in the chemical or science related complex. Analyze these industries' past, current, and prospective impact on the central downtown area and the rest of the metropolitan region. (3) Identify the main factors determining growth in the Region and develop long-range projections of trends in: (a) Output, employment, industrial concentration or diversification. (b) Population and its characteristics. (c) Future location of employment opportunities in relation to domicile. (d) Personal income and its components. (e) Economic factors determining the trends in demand for public expenditures and in public revenue sources. (4) Study the locational pattern of industry, business, and other activities within the metropolitan region, especially the movement of economic activity as between the core area and the rest of the metropolitan region. Assess the factors underlying shifts in location and land use and problems raised by foreseeable trends of growth and shift. Provide useful economic information and projection for use in planning and development. (ESO)

29. LAND USE PLANNING AND CONTROL ALONG THE INTERSTATE HIGHWAY SYSTEM IN GEORGIA

Main Investigators: Howard K. Menhinick and Harry W. Atkinson.

Status of Research and Publications: In process.

Agencies: Georgia Institute of Technology, Engineering Experiment Station, in cooperation with State Highway Department of Georgia and the U.S. Bureau of Public Roads.

Previous *Digest* report: None

Research Problem. Anticipating completion in Georgia of 1,100 miles of Interstate highways and construction of more than 300 interchanges, this study will review the status of land use planning in nearby counties and municipalities. Recommendations will be made for action by local and regional bodies, the State Planning Agency and the State Highway Department for control of land use in the vicinity of interchanges and along the highways as well. (HKM)

30. MASS TRANSIT IN THE METROPOLITAN AREA: THE POLICY PROCESS AND THE ILLINOIS-MISSOURI BI-STATE DEVELOPMENT AGENCY

Main Investigator: Eleanor A. Schwab.

Status of Research and Publications: In process. (Doctoral dissertation, New York University, Graduate School of Arts and Sciences.)

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program. (An inter-university dissertation committee has been set up between New York University and Southern Illinois University.)

Previous Digest report: None.

Research Problem. This study is concerned primarily with the question of the relationship between the organizational form of the Bi-State Development Agency, and its ability to act as a positive mechanism for recognizing, planning, and fulfilling the needs of the St. Louis Metropolitan Area.

The study will examine this relationship by an analysis of the initiation, formulation, and execution of the policy process within the agency with regard to the role of Bi-State as a coordinating unit for mass transit in the area.

Since little recorded data exists on the specific role of Bi-State in the transportation field, prime emphasis in this study will be on the information derived from interviews, and on the official minutes of the meetings of the Bi-State commissioners. Comparative materials concerning similar type agencies and operations over the country will be emphasized. (EAS)

31. EMPLOYMENT AND UNEMPLOYMENT IN EAST ST. LOUIS, ILLINOIS

Main Investigators: Jane W. Schusky and Seymour Z. Mann.

Status of Research and Publications: Listing, sampling, pretest completed. Field study initiated November 1, 1962. Completion of field study expected by mid December. Completion of analysis expected Spring 1963.

Agency: Southern Illinois University, (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest report: None.

Research Problem. This study examines the employment and unemployment situation in East St. Louis. It will be used to determine the locational employment pattern, the sources and amounts of revenue of employed and unemployed householders, expenditures, employment histories, general attitudes toward the job situation, as well as specific family and social changes accompanying the unemployment of household heads. The study is also concerned with underemployment-household heads supporting families on marginal incomes acquired through part-time employment or low-revenue self-employment.

Previous Relevant Research. The social effects of unemployment have not been systematically studied since the depression of the 1930's. Analysis of employment statistics and definitional difficulties occupy the major writings in this area today.

Method of Study. This study will involve the use of a two stage random sample of approximately 1300 households in the city of East St. Louis. A questionnaire will be administered in each of these households with supplemental items obtained in households with unemployed or under-employed family heads. Analysis of the data will follow and comparisons will be made with Census and Department of Labor statistics. (JWS)

32. THE IMPACT OF THE INTERSTATE HIGHWAY SYSTEM ON MADISON AND ST. CLAIR COUNTIES, ILLINOIS. PHASE ONE: AN ANALYSIS OF LAND USE AND LAND VALUE

Main Investigator: Richard E. Guffy.

Status of Research: Land use classification and coding system devised. Major base map work being completed and land use studies are in the field. Preliminary and final reports will be published by the sponsoring agency.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest Report: None.

Research Problem. In an area where there has been little land use planning in the past, it was felt that the initial phase of this investigation should emphasize an analysis of land use. This first phase of a continuing investigation of the impact of the interstate highway system on the St. Louis metropolitan area is designed, therefore, to obtain a detailed description of distribution of land use and land values in the Madison and St. Clair County area, not only for this impact study, but for other planning studies as well.

Previous Relevant Research. There is an impressive body of literature on other areas emphasizing the land use and land value changes which take place during a period of major highway improvement. However, few of these studies have gone beyond the point of describing the various changes which take place over time, before and after the completion of a new or improved highway system. During the course of the various phases of this investigation, an attempt will be made to correlate the numerous changes which occur over time in order to attempt to isolate the effects of highway improvement.

Method of Study. For this phase of the investigation, a detailed land use classification was devised to obtain data on land use and land value for each parcel of land in the study area. This information will be placed on punched cards in order to facilitate the mapping of land use and value. From this initial data, land use maps can be drawn at any desired level of generalization by using a rectangular grid system for the two-county area. Statistical analysis will be used to determine the correlation between the various land use and land value maps. The study will be continued for a sufficient length of time to observe both the short-run and long-run effects of the interstate highway system. (REG)

33. COMPARATIVE FISCAL CAPACITY AND EFFORT OF UNITS OF GOVERNMENT IN MADISON AND ST. CLAIR COUNTIES, ILLINOIS, 1950 and 1960

Main Investigator: Leo Cohen.

Status of Research: Research complete and manuscript in final stages of preparation. Study will be published early in 1963.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest report: None.

Research Problem. To measure the relative fiscal capacity and fiscal effort of townships, principal municipalities, and school districts in Madison and St. Clair Counties, Illinois, 1950 and 1960.

Previous Relevant Research. There is a body of literature emphasizing the importance of assessed valuation versus income and other theoretical measures of fiscal capacity. Few studies, however, have hitherto focused specific attention on geographical units below the county level.

Method of Study. This is basically a statistical analysis of relative fiscal capacity utilizing assessed valuation per capita (or per pupil) as the measure. The per capita figures are then converted to an index measurement. For cities, four other measures of capacity are obtained: assessed valuation per capita adjusted through sales-ratio data, sales tax receipts per capita, U.S. Census data on family and unrelated individual income, and value of owner-occupied residence. Effort is defined as the ratio of the tax rate of the assessed valuation per capita and thus measured accordingly.

Major Findings. For taxing jurisdictions which are rather unbalanced, i.e., primarily industrial or residential areas, the relative fiscal capacity may be quite different in magnitude depending on whether assessed valuation or income is utilized. Furthermore, the method of distributing state aid to education or grants-in-aid may give unusual results depending upon the importance of income or assessed valuation in the state aid formula.

The empirical data suggested the importance of further consolidation of taxing jurisdictions, especially school districts, in combatting the inefficiencies and fiscal inadequacies of many geographical units. (LC)

34. THE PROJECTED ECONOMIC GROWTH OF HAWAII TO 1970

Main Investigators: Daniel Slate, Kunye Sasaki, and Robert Ferber.

Status of Research and Publication: Data collected and projections currently being made by computers. Study should be completed by December 15, 1962, with publication by the Hawaii Department of Labor.

Agency: University of Hawaii, Bureau of Business Research, under the sponsorship of the Hawaii Department of Labor and with the assistance of the Bureau of Economic and Business Research of the University of Illinois.

Previous Digest report: None.

Research Problem. To project the economic growth of Hawaii annually to 1970 by major industry groups.

Method of Study. Segmentation of the Hawaii economy into "basic" and "secondary" industries, projection of trends in basic industries by statistical methods, and use of an econometric model to project growth in the secondary industries. (VLB)

35. IMPACT OF TECHNOLOGICAL CHANGES ON THE CHICAGO METROPOLITAN AREA

Main Investigator: Roland Meyer.

Status of Research and Publications: In process.

Agency: Illinois Institute of Technology, Armour Research Foundation, under sponsorship of Fourd Foundation, the Committee For Economic and Cultural Development and the Association of Commerce and Industry.

Previous Digest report: 9:1, p. 62.

Research Problem. Many economic projections have been made about the future of specific cities and areas, but it has been most difficult to assess the role that technological developments will have in these projections. This study is aimed at assessing this role--to dimension the influence that technology will have in the developments that are occurring in our urban areas. It is intended that the principles developed in this study and the conclusions reached about this area will be useful for other areas, municipalities, industrial organizations, service organizations, utilities and related groups concerned with planning for the future.

Method of Study. Study efforts will be concentrated on select manufacturing and service industries. Examples of such industries are electrical machinery, machinery, primary metals, chemicals, printing and transportation.

The impact of technological developments will be measured with such factors as employment, training, profit, growth, mobility, capital requirements and use of associated industries. (RM)

36. INVENTORY AND EVALUATION OF CHICAGO'S INDUSTRIAL PLANT

Main Investigator: Roland Meyer.

Status of Research and Publication: In process.

Agency: Illinois Institute of Technology, Armour Research Foundation, under sponsorship of City of Chicago, Community Renewal Program.

Previous Digest report: None.

Research Problem. The ultimate objective of this study is to supply the City of Chicago with a more comprehensive knowledge of the condition of its industrial plant and to provide some basic guidelines to assist the City in developing a more attractive "climate" for industry presently located in Chicago and for industry which might consider moving into this area.

Method of Study. (1) To individually inventory the physical and functional characteristics of each industrial building in the city and to establish a permanent card inventory for each of these buildings. (2) To identify industrial areas and locations in Chicago, which, due to age or condition of the structures, the nature of the immediate environment, the lack of adequate transportation facilities or other factors, are likely to become industrially obsolete in the near future. (3) To supply specific recommendations for programs which the city might undertake to aid these potentially obsolete areas. (RM)

37. A STUDY OF THE LINKAGE PATTERN BETWEEN A CENTRAL CITY AND THE COMMUNITIES WITHIN ITS REGION OF INFLUENCE

Main Investigators: George W. Greenwood, Aly M. Shady, and George T. Marcou.

Status of Research and Publications: Survey of literature on inter-community travel to be published by Highway Research Board. (See Research Digest 7:2-29.) Other reports now in draft form include (1) Regional Traffic Patterns in the Champaign-Urbana Area; (2) Conceptual Development of Regional Trip Generation Models; and (3) Statistical Development of Regional Traffic Models. These reports to be incorporated, together with a concluding section, in final report on project to sponsor. Completion and publication of final report expected during 1963.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of Illinois Division of Highways and U.S. Bureau of Public Roads.

Previous Digest reports: 5:2-12; 7:2-29; 8:2-20. (GWG)

38. THE RELATION OF FACTORS OF METROPOLITAN SUBURBAN EXPANSION AND THE UTILIZATION OF ON-SITE SEWERAGE FACILITIES IN THE URBAN FRINGE

Main Investigator: Edward L. Hopkins.

Status of Research and Publication: Data collection complete, analysis and evaluation in process.

Agency: University of Illinois, Bureau of Community Planning.

Previous Digest report: None.

Research Problem. During the period 1945 to 1960 the proportion of U. S. Metropolitan Area population utilizing central sewerage facilities substantially declined with a concommitant increase in reliance upon individual household sewerage devices. Even though no individual household or on-site system has proven universally satisfactory for urban areas, the use of septic tanks or similar devices has increased from serving 6.7 per cent of the total metropolitan population to 23 per cent during the period. Estimates indicate this will increase to nearly one-third by 1970. As a result there is a growing concern among health officials and environmental engineering specialists relative to the potential for ground water pollution and disease transmission from malfunctioning on-site disposal systems being used in urban areas. There are wide divergencies in the extent of utilization of individual household sewerage disposal devices among urbanized areas, but little explanation of what effect different metropolitan development conditions have in determining such variations. Based on data made available for the first time in the 1960 Census of Housing, this paper will define the differentials in reliance upon disposal means in the fringes of 83 urbanized areas and will examine the relation of various levels of such urban development factors as density, rate of growth, governmental organization and population size upon the type of sewerage disposal facilities being utilized in the fringes of expanding metropolitan areas. (ELH)

39. THE PROJECTED ECONOMIC GROWTH OF ILLINOIS TO 1971

Main Investigators: Robert Ferber and Neil Ford.

Status of Research and Publication: Research completed. Publication expected either this fall or in early 1963.

Agency: University of Illinois, Bureau of Economic and Business Research under the sponsorship of the Illinois State Revenue Commission.

Previous Digest report: None.

Research Problem. To project the future economic growth of the state of Illinois year by year to 1971 by major industries and local areas.

Method of Study. Projection of economic trends based on national projections of the National Planning Association, modified for the present purposes. (VLB)

40. INDUSTRIAL, COMMUNITY, AND INTERNAL CONDITIONS FOR SMALL RETAILER SURVIVAL

Main Investigators: Joseph D. Phillips and Elizabeth Y. Deran.

Status of Research and Publication: Field work completed. Publication expected in 1963.

Agency: University of Illinois, Bureau of Economic and Business Research under the Small Business Administration's Management Research Grant Program.

Previous Digest report: None.

Research Problem. While a very large number of individuals begin and discontinue small-scale retailing operations each year, little information, other than turnover statistics, is available regarding this segment of the small business population. This project has undertaken to shed some light on the factors, external and internal, which affect the functioning of these firms, hoping thereby to identify those conditions which are favorable to the survival of existing units and the creation of new ones.

Method of Study. The study was divided into two parts. The first portion was devoted to an investigation of the external conditions affecting small retail establishments. An effort was made here to discern the relationship between (a) industrial structure and (b) community characteristics and the prevalence and success of small business. Materials utilized in this portion of the study included data published by the Internal Revenue Service on profits of unincorporated businesses and a special tabulation by the Bureau of the Census of 1958 retail trade data for nine groups of cities classified by economic structure. The second phase of the study consisted of an investigation of the internal factors which contribute to the successful operation of small business. Information here was garnered from detailed interviews conducted during the summer of 1961 in nine Illinois communities. The communities selected differed from one another not only in industrial structure and size, but also in their sociological characteristics. Of the 439 individuals interviewed, 419 were engaged (at the time) in the operation of a business. The remaining twenty interviews were with former businessmen whose firms had ceased operation in the recent past. The detailed information collected on the history, finances, operating methods, and competitive practices of these retailers was analyzed by community, business size, age of firm, and retail line. (VLB)

41. TOWARD THE FUNCTIONAL CITY: A HISTORY OF THE GARDEN CITY CONCEPT

Main Investigator: Walter L. Creese.

Status of Research and Publication: Research completed. Manuscript in process. Possible publication by University of Liverpool.

Agency: University of Illinois, Department of Architecture.

Previous Digest report: None.

Research Problem. To study growth and development of Garden City concept.

Previous Relevant Research. In England twice. 1955-56 as a Fulbright postdoctoral research scholar and 1960 (summer) as a Rehmann Fellow of the American Institute of Architects.

Method of Study. Historical. Interviews, investigation of records and archives.

Major Findings. The chief discovery of the book is that the garden city was evolving as a concept from the late 18th century. Much of its character derived from the breakdown of communal life under the impact of the industrial revolution, but it was also an effort to formulate a more complete and functional environment, thus belonging within the 19th century program of greater efficiency for all living units. The narrative covers the British city from the early 19th century, and particularly the industrial towns of the north; the garden village, the garden suburb, and the garden city; and the forms in the 20th century influenced by these, especially in the U. S. and Scandinavia.

There is included quite a lot of previously unpublished material on the lives of Sir Raymond Unwin and Barry Parker. (WLC)

42. RELATION BETWEEN INTENSITY OF DEVELOPMENT OF MULTI-FAMILY HOUSING PROJECTS AND LIVEABILITY OF PROJECTS

Main Investigator: Robert D. Katz.

Status of Research and Publication: Publication expected late 1962 - early 1963. Research program amended to include three American cities in addition to those in Western Europe previously visited.

Agency: University of Illinois, Department of City Planning and Landscape Architecture, under sponsorship of the Graduate College of the University of Illinois, the American Institute of Architects, and the Federal Housing Administration.

Previous Digest report: 8:2-24 (RDK)

43. STATE ADMINISTRATION OF WATER RESOURCES IN WYOMING

Main Investigator: John B. Richard.

Status of Research and Publication: In process. The research will be used for a doctoral dissertation.

Agency: University of Illinois, Department of Political Science.

Previous Digest report: None.

Research Problem. To identify major state agencies dealing with water resources, describe interrelationships among them, and analyze their roles in the development of water policies for the state.

Method of Study. For analytical purposes the complex of state agencies dealing with water programs will be viewed as a system of interrelationships, the parts of which vary in the kinds and frequency of their relationships with one another. (CBH)

44. LOCATION OF METROPOLITAN RESIDENTIAL AREAS

Main Investigator: Theodore R. Anderson.

Status of Research and Publications: During the past year substantial progress has been made in assembling data on over 800 metropolitan census tracts. Most of the data have been placed on I. B. M. cards and regression-covariance analysis via computers is just beginning.

Agency: Iowa Urban Community Research Center

Previous Digest report: 8:1-16. (TRA)

45. CITY POLITICS IN AMERICA: AN INTERPRETATION

Main Investigators: Edward C. Banfield and James Q. Wilson.

Status of Research and Publication: Manuscript in final revision. To be published in 1963.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-10.

Research Problem. Using the data available from the Banfield-Derthick City Politics Reports and other sources, this study will describe political behavior in American cities. The analysis will cover electoral systems, party structure, power and leadership, the role of the professional politician, and voting behavior, with particular regard to housing and urban renewal, metropolitan organization, race relations, transportation, planning, and public finance. (RWC)

46. CITY POLITICS REPORTS

Main Investigators: Edward C. Banfield and Martha Derthick.

Status of Research and Publication: The series of twenty-one reports is nearly completed. Reports on the following cities have been issued: Boston, Worcester, St. Louis, Detroit, Manchester, St. Paul, Minneapolis, Salt Lake City, Nashville, New Castle, New York, Denver, Seattle, Milwaukee, Cincinnati, Washington, D. C., Houston, Miami, Kansas City, Los Angeles, San Diego and Stockholm (the only foreign city in the series). Reports are in preparation on Philadelphia and El Paso.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-10; 7:2-37.

Research Problem. This is a continuing project which brings together in a series of reports basic background data on the politics of United States cities. Information is included on: (1) characteristics of the population, (2) structure of government and parties, (3) elections, (4) external relations, (5) interest groups and influence structure, (6) issues and problems. (RWC)

47. ACTIVITIES OF THE BOSTON CITY COUNCIL

Main Investigator: Thomas Sullivan.

Status of Research and Publication: Preliminary research underway.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. Through the analysis of the actions taken by the Boston City Council in the recent past, an attempt is being made to shed some light on the decision-making processes of a large city. The principle focus is on financial decisions. The study is an attempt to compile data and to develop helpful suggestions concerning the decision-making process in Boston. (RWC)

48. ANALYSIS OF BOSTON'S METROPOLITAN DISTRICT COMMISSION

Main Investigator: Charles R. Cherington.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-22.

Research Problem. The work is organized in three parts: (a) how the commissions combined and developed; (b) political intrusions on the Commission and consequences; and (c) future of the Commission. (RWC)

49. FORM OF HOUSE AND SETTLEMENT PATTERN IN PRE-LITERATE SOCIETIES

Main Investigator: John W. M. Whiting.

Status of Research and Publication: A manuscript is in preparation. No completion date has been set.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-20.

Research Problem: This study is a comparative analysis of ethnographic materials describing the form of dwellings and settlement patterns. In the initial phase of the study particular attention has been paid to the contrast between circular and rectangular forms. In a sample of 120 societies under investigation the floor plans of approximately half of them are square or rectangular, one-third circular and one-sixth miscellaneous shapes. Settlement patterns are about one-half each circular, rectalinear, and scattered. As an indication of the strength of form, there is a statistically significant tendency for dwellings with round floor plans to be arranged in circles or enclosed by a circular fence or wall.

Our investigations so far lead us to believe that the form of floor plan and settlement is related not only to practical considerations such as the availability of appropriate building materials, but also to more subtle psychological preferences. Such differences are correlated with child rearing practices which are in turn influenced by features of the social structure such as the living and sleeping arrangements of mother, father, and infant. (RWC)

50. ECONOMIC HISTORY OF THE AMERICAN CITY

Main Investigator: William Letwin.

Status of Research and Publication: In process. A series of articles on aspects of the city in American economic history is expected during the next year.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. The ultimate objective of this study is a large and definitive work on American economic history which examines with special care the relations between economic theory, policy and growth. Mr. Letwin is working at present on the role of cities in the economic development of the United States. (RWC)

51. GOALS OF MUNICIPAL POLICY IN AMERICAN REGIONAL CITIES, 1760-1930

Main Investigator: Sam B. Warner, Jr.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study will deal with three periods: 1760-1780, 1830-1850, 1900-1930. Through the use of the contemporary newspapers and other primary sources from Philadelphia, New Orleans, Chicago, and Los Angeles, in the appropriate periods, this study will attempt to determine the effects which social and economic forces in these cities have had on the goals of municipal policy. (SBW)

52. THE ZONE OF EMERGENCE

Main Investigators: Robert A. Woods and Albert J. Kennedy. Editor, Sam B. Warner, Jr.

Status of Research and Publication: In press.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous *Digest* report. None.

Research problem. This book is a 1912 account of conditions in the workingclass and lower middle class suburbs immediately outside the core city of Boston. The authors were settlement workers; the introduction places this rare account in the setting of the settlement movement of the time. (RWC)

53. SOCIAL MOBILITY

Main Investigator: Stephan Thenstrom.

Status of Research and Publication: Based on a doctoral dissertation in the History of American Civilization program at Harvard University, 1962. This work is in process of revision for publication.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous *Digest* report. 9:1-29. (RWC)

54. URBAN DEVELOPMENT OF LOS ANGELES

Main Investigator: Robert Fogelson

Status of Research and Publication: Manuscript to be completed in Spring, 1964.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous *Digest* report: None

Research Problem. An examination of the urban development of Los Angeles, which seeks to discover the origins of the town, to define the process of urban development as it evolved, and to trace the repercussions of this particular process on the structure, character and culture of the urban community. The approach is historical, the time span from 1850-1930, and the sources the private and official records of the time. (RWC)

55. ETHNIC GROUPS IN NEW YORK CITY

Main Investigators: Nathan Glazer and Daniel P. Moynihan.

Status of Research and Publication: The manuscript of an expected book is now in the final stages of preparation and should be ready for publication by next fall.

Agency: Joint Center for Urban Studies and the Massachusetts Institute of Technology and the New York Post Foundation.

Previous Digest report: None.

Research Problem. This is a study of five major ethnic groups of New York City: Negroes, Italians, Jews, Puerto Ricans and Irish. The emphasis is on the changes experienced in their economic conditions, their styles of work, living, and politics. In addition to increasing understanding of New York City, the authors expect to draw inferences on the effect of ethnic heterogeneity in the wider American scene. (RWC)

56. URBAN RENEWAL IN THE UNITED STATES

Main Investigator: Charles Abrams.

Status of Research and Publications: Should be completed in about six months.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, under sponsorship of the Ford Foundation.

Previous Digest report: None.

Research Problem. An assessment of urban renewal in the United States taking in questions of the Federal role in housing and urban renewal; taxation and financial aspects; downtown areas; problems of cities; defects, virtues and potentials of program; and proposals for a new program. (CA)

57. URBAN RENEWAL IN THE UNITED STATES

Main Investigator: Martin Anderson.

Status of Research and Publication: Doctoral dissertation for the School of Industrial Management of the Massachusetts Institute of Technology, completed in 1962. Being revised for publication.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. The first part of this study is concerned with developing aggregate statistics which will provide insights into the urban renewal program. These aggregate statistics will then be used to analyze the past record of urban renewal. Some of the main areas to be explored are: (1) the growth of the program; (2) the cost -- both public and private; (3) capital formation in urban renewal areas; (4) the role of the private developer; and (5) time lags and urban renewal. (RWC)

58. METROPOLITAN STRUCTURE AND THE REBUILDING OF CITIES

Main Investigator: Bernard J. Frieden.

Status of Research and Publications: A doctoral dissertation was accepted by M.I.T. in June. An article reporting some of the findings was published last year: "Locational Preferences in the Urban Housing Market", Journal of the American Institute of Planners, XXVII (November 1961), 316-324. Further research has been completed on national trends in the utilization of central-city housing and on social forces underlying the continuing demand for old housing in the "grey areas". Findings of the entire project will be reported in a monograph currently in preparation for the Joint Center for Urban Studies.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report. 9:1-26. (BJF)

59. LOCATION AND LAND USE: A MODEL OF THE URBAN LAND MARKET

Main Investigator: William Alonso.

Status of Research and Publication: Manuscript in press; expected publication, summer 1963.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report. None.

Research Problem. To extend rent and location theory to residential and business uses in the city.

Hypotheses. Economic men.

Method of Study. Economic analysis and empirical investigation.

Major Findings. A revision of many of the conclusions traditionally accepted in land economics and human ecology; these revisions, if correct, would have bearing on many problems of cities, including zoning and urban renewal. (WA)

60. URBAN TRAFFIC

Main Investigators: Aaron Fleisher and Marion Marill.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-16; 8:2-30.

Research Problem. The aim of this work is to develop a valid analogue for the real system of urban transportation. Through a series of computer models, Professor Fleisher is attempting to determine the relevant variable and conditions in the aggregate of transportation conditions. From this determination an analogue model will be constructed.

Preliminary work has dealt with the relationship between the form of a city and its transportation network. Computer models of the urban setting were developed for different patterns of land use and traffic predictions. For each model an optimum transportation network was determined. The results have suggested that average value and variability of trip length is insensitive to city form and more sensitive to the decision function. (RWC)

61. RAIL RAPID TRANSIT SYSTEMS

Main Investigators: A. Scheffer Lang and Richard M. Soberman.

Status of Research and Publication: To be published as a monograph.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-17; 8:1-17.

Research Problem. This study aims at the identification of the significant physical and economic characteristics of urban rail transit systems. Empirical data on existing North American rail transit operations form the basis for a set of simple models relating transportation cost to live capacity, speed, and other measures of performance. Overall capabilities are to be related to those of other modes of urban transportation.

This study is an outgrowth of an earlier consideration of urban transportation capacity. The results are intended to find their maximum usefulness in planning the allocation of resources between competing modes of urban transportation. (RWC)

62. POLITICS OF METROPOLITAN TRANSPORTATION

Main Investigator: Frank Colcord.

Status of Research and Publication: Doctoral dissertation in Political Science at Massachusetts Institute of Technology.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. The single policy area of urban transportation is being studied in order to keep the research manageable. This field seems particularly appropriate because it cannot be dealt with by decision-makers on a purely municipal basis. Some degree of interaction among local, state, and even Federal officials in order to meet the most basic needs of the metropolitan area is required.

Method of Study. In his thesis, Colcord will contrast the ideal solutions recommended in the planning literature with the actual decisions which result from the realities of metropolitan politics. He will develop a model of this unstructured political system as it relates to and has its impact upon transportation decisions. The actors in the metropolitan system at all levels, in and out of formal government positions. will be identified and the sources of their power will be examined. These sources will include not only factors internal to the local and state political system, but external forces such as the impact of federal aid programs. The effort will be aimed at finding the means by which these internal and external forces are able to overcome the impediments of an organizational structure where formal control is highly fragmented.

The political aspects of the Boston area's transportation problems will be analyzed as an empirical test of the above model. Using the proposals that have been made locally for rationalization of the system as a benchmark, the actual policies and programs agreed upon by the political decision-makers will be studied to demonstrate the contrast and to reflect the political realities. The emphasis will be placed on the struggle for leadership within the political system, and the means by which and the extent to which these leaders have succeeded in overcoming the lack of a statutory focal point for leadership in the metropolitan structure. (RWC)

63. VIEW FROM THE ROAD

Main Investigators: Donald S. Appleyard, Kevin Lynch and John R. Meyer.

Status of Research and Publications: Completed and published by M.I.T. Press, 1962. 192 pp. $7.50.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research problem. A study of the design of the highway as an aesthetic experience of the motorist in a new dimension of motion which produces its own set of values. It considers the general nature of sequential visual form, analyzes some reactions to real highways, and proposes a technique for designing the view from the road, with illustrations. (KL)

64. THE STRUGGLE FOR SHELTER

Main Investigator: Charles Abrams.

Status of Research and Publication: A preliminary manuscript has been prepared and is presently undergoing revision for publication.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, under sponsorship of United Nations Technical Assistance Program.

Previous Digest report: 7:2-36.

Major Findings. The study is based mainly on missions by the author to 12 countries. It deals with main problems, such as squatting, land problems, levels of training, regional planning, finance, administrative and other aspects of development which should go into preparation of housing and city planning in newly developing urban areas. (CA)

65. URBAN RENEWAL

Main Investigator: Grady Clay.

Status of Research and Publications: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, sponsored by the Ford Foundation.

Previous Digest report: 7:2-35.

Research Problem. An analysis of visible changes in the urban landscape, and the political, economic and other decisions which lead to these changes, with particular reference to urban renewal programs in selected cities. (RND)

66. JOINT CENTER GUAYANA PROJECT IN VENEZUELA

Main Investigators: Norman Williams, Willo von Moltke and others.

Status of Research and Publication: The study is presently underway with headquarters in Caracas. A preliminary work outline has been prepared, and recruiting of the project staff is nearing completion.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University; and the Corporacion Venezolana de Guayana, a development corporation of the Venezuelan National Government.

Previous Digest report: 8:2-31.

Research Problem. The project is attempting to serve three functions: (1) the practical problem of formulating an economic development strategy of the Guayana region including a general plan for a new city at the junction of the Orinoco and Caroni Rivers; (2) the preparation of a number of basic studies dealing with (a) the problems of linking urban regional planning to the national economic development policy; (b) the problem of coordinating economic, social and physical planning in developing countries; the training on the job of people both in Venezuela and Cambridge in the techniques of regional and urban planning in emerging nations. (RWC)

67. LAND TRANSFER IMPROVEMENT - A SUGGESTED APPROACH

Main Investigator: Ted J. Fiflis.

Status of Research and Publication: Research has been completed and the paper is in substantially final form. Publication may be in the form of a monograph or may be in the form of two or more articles in a law review.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology, Harvard University and Harvard Law School.

Previous Digest report: None.

Research Problem. This study is concerned with the high cost and delay in conveyancing of real estate and the insecurity of real estate titles under present methods of conveyancing.

Previous Relevant Research. Most of the research in this area has been applied research. The last previous attempt to gather factual data is embodied in Powell, Registration of the Title to Land in the State of New York, prepared under a grant from the Carnegie Foundation and published in 1938 by the New York Law Society.

Hypotheses. Two hypotheses form the basis of the study: (1) given the fact that the modern trend in conveyancing reform is to make the public records increasingly conclusive, improvements may be made in the recording systems by studying and borrowing from title registration systems of protecting titles to real estate; and (2) existing techniques for converting from a recording system to a title registration system are unnecessarily expensive and lengthy.

Method of Study. Data concerning the delay and expense in conveyancing and the security of titles was gathered by personal interviews, questionnaires and through other primary sources in states where title registration was in practical operation. In addition the English system of title registration was studied through various secondary sources and the primary source of the record in an administrative hearing where the issue was whether title registration should be instituted in the County of Surrey.

Major Findings. Major findings bore out both hypotheses and recommendations have been made for both improvement of existing recording systems and institution of basic changes in title registration systems. (TJF)

68. KANSAS CITY MUNICIPAL ELECTION STUDY

Main Investigator: John G. Grumm.

Status of Research and Publication: In process. To be published as a research monograph by Community Studies, Inc.

Agency: University of Kansas, Department of Political Science, under sponsorship of Community Studies, Inc. of Kansas City.

Previous Digest report: None.

Research Problem. The object of the project is to investigate voter attitudes, motivation and behavior and the role played by political organizations in a local non-partisan election.

Hypotheses. It is hypothesized that the attitudual structure of the voter in regard to local politics is partially independent of, but also partially related to, attitudes and identifications associated with national politics. The Kansas City style of non-partisan local elections seems to result (as was desired by the "reformers") in an obscuring of the connection between local and state and national politics. National party identification therefore would appear to play a minor role in voting decisions of the local electorate. Since party identification has been found to be a major factor in voting nationally, the project is aimed at finding out how the local voter structures the various stimuli in a campaign situation where party identification apparently cannot serve this function.

The manner in which the local political groupings adjust to these conditions, and how their goals and strategies are affected by them will also be subject to investigation.

Method of Study. The study will be based substantially on a sample survey of the Kansas City electorate. A random area sample of approximately 1,000 adult residents of the city will be drawn. Each person in the sample will be interviewed before and after the 1963 city election. The sample survey will be supplemented by interviews with local leaders and party workers. (JGG)

69. INTERCOUNTY COMMUTING IN KENTUCKY

Main Investigator: Charles B. Garrison.

Status of Research and Publication: Completed. Published by agency, May, 1961. 77 pp. Mimeographed.

Agency: University of Kentucky, Bureau of Business Research.

Previous Digest report: None.

Major Findings. About 100,000, or 13 per cent, of Kentucky's non-agricultural workers work in a county other than that of their residence. More than half drive to jobs in adjacent states. The eight counties containing the state's largest cities account for 10 per cent of the non-agricultural employment in immediately adjacent counties and 3 per cent of employment in the next ring of counties. The proportion of commuters is highest in construction, lowest in services. Commuting is also high in manufacturing, mining and government but is low in trade, finance, and transportation and utilities. Size of firm also exerts an important influence. Ninety-seven large firms employing 500 or more workers provide 20.6 per cent of jobs, and account for 34.3 per cent of inter-county commuting. Located in only 25 counties, their employment is distributed to 108 of the states 120 counties. (JWM)

70. THE MIAMI METROPOLITAN EXPERIMENT

Main Investigator: Edward Sofen, Associate Professor, Department of Government, University of Miami.

Status of Research and Publication: Completed. Will be published by Indiana University Press in January, 1963.

Agency: University of Miami, Department of Government and Bureau of Business and Economic Research, under sponsorship of the Ford Foundation.

Previous Digest report: 7:2-40.

Research Problem. Essentially, The Miami Metropolitan Experiment is a historical treatment of the background, internal struggles, and first achievements of Miami's Metropolitan Government. The problem was to examine the Miami milieu, its social forces and power relationships in an attempt to explain the success of the Miami venture.

Previous Relevant Research. (1) "Financial Dilemma Miami-Date Style," National Civic Review (April, 1962), pp. 220-22; (2) A Report on Politics in Greater Miami, Cambridge: Joint Center for Urban Studies of MIT and Harvard University, 1961. (Mimeographed.) (3) "Problems of Metropolitan Leadership: The Miami Experience," Midwest Journal of Political Science, V (Feb. 1961), 18-38; (4) Comparative Basic Costs of Homeownership in Dade County, Coral Gables: Committee on Municipal Research, University of Miami, 1960. (Mimeograph.); (6) Joint Authorship: Wood, Thomas J. and Sofen, Edward, Municipal Finance in Dade County for the Fiscal Year 1960, Coral Gables: Committee on Municipal Research, University of Miami, 1961. (Mimeographed.)

Hypotheses. (1) The Miami Metropolitan Government was a conspiracy of the power elite; (2) the public found the government services intolerable; (3) power relationships within the Miami structure, aside from municipal officials, would be little affected by the change to metropolitan government; (4) Miami was youthful enough so that deep irrational loyalties to municipalities had in most cases not developed; (5) the Miami formula was vague enough to mean different things to different people.

Method of Study. Review of primary and secondary sources and interviews with major actors. Political behaviour data secured from (1) public opinion polls; (2) leadership study; (3) election statistics; and (4) precinct returns on the basis of income and residential swelling.

Major Findings. (1) The formation of Miami metropolitan government was not so much a revolution as an attempt to have the formal political structure coincide more rationally with the informal community power structure; (2) Metro's charter meets the prescription of a charter which is short and obscure; (3) PAS placed the "Good Housekeeping Seal of Approval" on Miami's metropolitan government; (4) Miami was able to coopt first line leaders for its Charter Board; (5) it was the combined efforts of the city oriented officials, the federalists and the ultra consolidationists, a sort of political tossed salad which led to agreement on a federal formula; (6) Miami was able to create a metropolitan government with the very type of support that failed elsewhere because of its rather unique amorphous atmosphere devoid of strongly organized political parties, labor and ethnic groups. (ES)

71. METHODOLOGY FOR STUDYING THE SERVICES OF LOCAL GOVERNMENT

Main Investigators: Peter J. Stalis and James M. Friedlander.

Status of Research and Publications: Completed and published by agency.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: 7:2-55. (FMK)

72. FOUR LOCAL GOVERNMENTS, A COMPARATIVE STUDY OF SERVICES PROVIDED BY EAST DETROIT, OAK PARK, REDFORD TOWNSHIP AND TRENTON, MICHIGAN

Main Investigator: James M. Friedlander and others.

Status of Research and Publication: Research completed; report being edited for publication.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: 8:2-37; 7:2-55.

Research Problem. To identify, evaluate, measure, and compare services offered by four variegated suburban communities which include one township and three cities.

Previous Relevant Research. A Methodology for Studying the Services of Local Government. Stanlis and Friedlander. (Research Digest 7:2-55.)

Hypotheses. (1) Few communities have summary data on the services that they perform, much less quantitative or qualitative analyses. (2) Labor fringe benefits, debt service and equipment depreciation are substantial elements in the cost of governmental services, yet are seldom considered in the determination of costs for the performance of such services. (3) Most efforts at comparing the governmental services between various communities are hampered by the lack of uniform methods of measurement. (4) An intensive comparative study of local governmental services in a metropolitan area will lead to the identification of services which could be performed better or more economically at a higher level of government or through intermunicipal cooperation. (5) There is some degree of intermunicipal cooperation already, even if informal. (6) There is probably a disparity between services performed by those communities which are "rich" and those which are "poor."

Method of Study. As outlined in A Methodology for Studying the Services of Local Government which required some refinement in the process of making this comparative study.

Major Findings. (1) The "richest" community provided 365 services, two "poorer" communities provided about 290 services. (2) The "rich" community performed its services at higher per capita costs, generally at higher unit costs, and often - despite smaller population and fewer units of work - at higher absolute costs. (3) Two communities achieved major savings through cooperation in rubbish disposal. Other examples of cooperation were intermunicipal fire fighting agreements, police communications, animal pound operation, renting of public works equipment, and public library services. (4) The role of county government varies among the counties, and this affects the type and cost of services performed by the communities. (5) Although all four communities have grown rapidly since 1945, their construction of needed capital improvements has varied considerably according to wealth and willingness to pay. (6) Absolute costs for certain services do not vary extensively with population size; this would indicate that many activities could be performed cooperatively among several communities, or by larger communities, at considerable reduction in per capita cost or even unit cost. (7) Record keeping varies considerably. Generally, records are better where the department is more professionalized. There is no uniformity of nomenclature, method of operation, departmentalization of services, organizational structure, record keeping or fiscal bookkeeping. (JMF)

73. SOUTHEASTERN MICHIGAN ECONOMIC STUDY

Main Investigator: Cecil M. Birch.

Status of Research and Publication: A working outline of a program proposal for economic research was prepared and published in September, 1961, for use of the staff. Proposals contained in this outline have subsequently been incorporated into an enlarged program which has been detailed in a request for funds from the Housing and Home Finance Agency of the federal government under its "701" program.

Previous Digest report: 8:1-22.

Research Problem. To devise a program designed to bring about growth in population and incomes in the six-county area of Southeastern Michigan.

Major Findings. Such a program would concentrate on six major research projects. They would be: (1) the Contemporary Setting; (2) the Labor Force; (3) the Automobile Industry; (4) Location Factors; (5) Industrial Development, and (6) Diversification. (JMF)

74. LOCAL ECOLOGICAL COMMUNITY: AN INVESTIGATION OF RELATIVE INDEPENDENCE IN AN URBAN SOCIETY

Main Investigator: Allan G. Feldt.

Status of Research and Publication: Doctoral Dissertation (Ann Arbor, Michigan: University Microfilms, Inc., 1962).

Agency: University of Michigan, Department of Sociology, under major support from the Program for Research in Population and Human Ecology.

Previous Digest report: None

Research Problem. In a modern industrial society, the problem of delimiting community boundaries has become increasingly difficult due to the wide variety of ways in which local communities interact with their hinterland populations and with neighboring communities. Without an adequate means of such delimitation, it becomes difficult to determine accurately the suitable population referrent for any particular community under investigation.

Method of Study. A series of operational criteria for measuring the level of self-sufficiency of population aggregates are developed as a variation on fundamental measures of functional specialization. Arguing that deviations from self-sufficiency in a given industry are indications of interaction with other outlying populations, measures of self-sufficiency are obtained for 10 non-basic or service industries for each of five population aggregates associated with the non-southern SMSA's. That population aggregate which provided the highest level of self-sufficiency for all 10 service industries at once was then taken as the best available approximation to a community and was termed the Local Ecological Community.

Major Findings. Although population configurations corresponding to the SMSA were selected as the Local Ecological Community more often than any other type of configuration, they were not selected as such in the majority of the cases. Population configurations, both larger and smaller than the SMSA, were selected almost as frequently as the SMSA itself. Despite the correspondence between the SMSA and the Local Ecological Community on a conceptual level, their correspondence on an operational level is not strong.

Factors related to the level of self-sufficiency of the various population configurations appear to be primarily associated with the relative proximity of other competing communities within the observed community's hinterland. An investigation was then undertaken to determine the effect on the measurement of other social, demographic, and economic variables of basing their measurement upon population configurations with a relatively high and homogeneous level of self-sufficiency. Preliminary results indicate that the variance of the great majority of such variables is reduced considerably by the exercise of the appropriate controls on the level of self-sufficiency of communities. These findings support the argument that some of the differences which have been observed among "communities" can be attributed to poor delimitation of community boundaries and the resultant inadequate measurement of their population characteristics. (AGF)

75. STIMULATION OF THE POTENTIAL OF THE STATES OF MISSOURI, OKLAHOMA, KANSAS, ARKANSAS, IOWA AND NEBRASKA BY GREATER PARTICIPATION IN SPACE SCIENCE AND TECHNOLOGY

Main Investigators: Howard Gadberry and James Alcott.

Status of Research and Publications: Project initiated November, 1961. Quarterly progress reports are furnished sponsor. Major publications of results and conclusions will not be made before November, 1964.

Agency: Midwest Research Institute, under sponsorship of National Aeromautics and Space Administration.

Previous Digest report: None.

Research Problem. To determine the most effective ways of stimulating the participation of six midwestern states in space science and technology.

Hypotheses. The science and technology of the space effort represents a potentially significant source of long range economic growth for the

Midwest if ways can be found to communicate such information.

Method of Study. An intensive review of NASA activities has provided a large number of space "spin-offs", examples of technology used in the space effort which have potential industrial application. A representative array of such ideas has been presented to public meetings of industrial firms in 12 midwestern cities. Approximately 600 firms have been reached by this effort; industrial participants provide MRI with an index of their technical capabilities and fields of interest to be used as a guide for further dissemination activity. MRI engineers and physical scientists have visited about 200 firms for more intensive discussions of space-derived ideas and their relation to specific industrial problems. Publications and further follow-up activity are planned.

Major Findings. The space program provides a source of highly useful ideas for midwestern industry, particularly in terms of new processes, materials and techniques. Industry for the most part is not aware that there are "practical" applications of space technology and most firms have initial difficulty in identifying ideas of specific value to themselves.

It appears that an active regionally-oriented effort can be effective in the dissemination of information to both educational and industrial communities and that such an effort may materially reduce the customary time-lag of such transfer of information. (JA)

76. LAND FOR HIGHWAYS, THE PUBLIC AS PURCHASER

Main Investigators: James Schwinden, Harvey Nelson and Everett G. Smith.

Status of Research and Publications: Study completed. Publication September, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-36.

Research Problem. To establish relationship between compensation payments and the extent (or nature) of the property (or rights) taken plus damages as a direct consequence of highway land acquisition.

Hypothesis. That examination of data related to different highway land acquisitions and land prices will permit their classification and will establish relationships or the lack of them.

Major Findings. (1) Using aggregated acquisition data there are relationships between payment rates and the degree of disruption occasioned by land acquisitions. (2) Among data from individual acquisitions there is evidence of a disturbing variability in payment rates. (3) Aware payments are related to appraisals. Appraisals are related to estimated property values but the latter are at a considerably lower level. (JS)

78. GUIDELINES FOR LAND VALUE ESTIMATION

Main Investigators: James Schwinden, P. M. Raup and J. R. Borchert.

Status of Research and Publication: Study completed. Publication expected December, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-41.

Research Problem. The purpose of the report is to develop and apply methods which will reflect a systematic and objective utilization of market transactions for the estimation of real estate values.

Major Findings. (1) From examination of the process of land marketing it appears that (a) market prices are established for entire parcels without allocation to component parts and, (b) in estimating expected prices one must seek the most likely price at which a property would be marketed. (2) The statistical techniques of regression and correlation are useful in land value estimation (a) for the highway planner as he answers the public's questions on a highway's effect on land values, and (b) for right-of-way acquisitions the estimates could serve to constrain appraisals between the selected upper confidence limit and the level of most likely prices. (JS)

79. BENEFITS AND COSTS OF MODIFICATIONS TO INTERSTATE HIGHWAYS

Main Investigators: James Shwinden and Donald Winkelmann.

Status of Research and Publications: Study completed. Publication expected December, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-43.

Research Problem. The report examines procedures for making benefits-costs comparisons and the usefulness of some of the techniques employed to measure benefits. The results of some empirical studies are included which show rural originating trip frequency by trip purpose and destination.

Major Findings. (1) The Present Net Worth (PNW) formulation for benefits-costs comparisons has two advantages over presently used formulations: (a) PNW provides an invariable standard for decision which is consistent with the goal of conserving resources and, (b) PNW permits the ranking of entirely different projects in terms of order of priority. (2) Estimates of benefits are extremely sensitive to assumptions made about the preinterstate highway environment and about the changes in travel patterns that are expected to occur postconstruction. Consequently an explicit and comprehensive statement of assumptions should accompany each estimate of benefits. (JS)

80. PROJECTION OF POPULATION AND HIGHWAY TRAFFIC IN MINNESOTA

Main Investigator: J. R. Borchert.

Status of Research and Publication: Study completed. Publication expected December, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-44.

Research Problem. The report quantifies the population pattern using county data (at 30 year intervals since 1870), it establishes a relationship between the distribution of population and traffic on the state highway system, and it projects population and traffic volume to 1970.

Major Findings. The analysis and projection indicates that the state highway system is now essentially a complete network, which provides practically equal freedom of movement in any direction from any point in the system. It further indicates that the traffic burden on the highway system will become increasingly unevenly distributed geographically, despite general growth throughout the system. This will result from continued concentration of the state's population growth in the Twin Cities and other major urban areas.

81. IMPACT OF THE ST. LAWRENCE SEAWAY ON THE UPPER MIDWEST REGION

Main Investigator: Anne Krueger.

Status of Research and Publications: Research complete. Report currently under review by sponsoring agency.

Agency: University of Minnesota, School of Business Administration, under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 8:2-48. (AK)

82. MONTANA'S FOREST PRODUCTS INDUSTRY

Main Investigators: Arnold W. Bolle, Gordon D. Lewis, William K. Gibson and Robert C. Haring.

Status of Research and Publications: Field work completed. First draft in process. Final report due December 31, 1962. Will be published as an Upper Midwest Economic Study Report in 1963.

Agency: Montana State University, Bureau of Business Research and Forest and Conservation Experiment Station, under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 8:2-51.

Research Problem. For the last five years the lumber industry has been under the effect of a general decline in product demand induced by a lower level of building construction and increased use of substitutes. The purpose of this study is to determine: (1) changes in the competitive structure of the industry; (2) the industry's ability to adapt; (3) general direction and extent of interrelationship of Montana's forest products industry to the change in demand of the lumber portion of the industry; (4) the specific effect on the natural resources; (5) the effect of increasing pressure from other uses upon the availability of raw material supply for industrial purposes.

Previous Relevant Research. Guthrie & Armstrong, The Western Forest Industry; Bolle, Multiple-Use Management in the Flathead Area; and USFS, Senate Document No. 9, Full Use and Development of Montana's Resources.

Hypothesis. Aggregate demand for timber is declining but utilization of timber is also changing. Shortage of supply in other regions is bringing new industry to Montana. This combination of circumstances places new and greater demands on Montana's forest resource. Growing demand for other uses of the forest increases competition. Trends need to be examined to determine policy and management needs to meet foreseeable need.

Method of Study. Personal interviews formed the basis for the problem investigation. All of the major mill owners in the state were interviewed concerning all phases of their operations. Equipment dealers, bankers, allied business men, and many other interested parties also provided data. Federal and state agencies were interviewed concerning public resource and policy aspects of raw material supply. Credit and investment data that pertained to the Montana forest products industry were obtained both in and out of the state. Appropriate statistical data required in the study were obtained from the literature and agency files.

Major Findings. The Montana forest products industry has made substantial growth in spite of the general decline in the demand for lumber. New industry has come into the state to replace the loss of sawmills. The larger mills are turning toward product diversification to take up the loss in lumber sales. New sawmills that are capable of utilizing small diameter logs have been established. Plywood plants have expanded in the last several years. A pulp and paper plant which utilizes mill residue has been established. The entire industry has been changing in overall structure and composition. The supply of raw material appears to be adequate for existing operations. The supply of pulp type raw material appears to be unlimited.

Expansion along these lines appears to be very possible. Lumber producers are having difficulty in adjustment. Forest land managers are endeavoring to adjust. (AWB)

83. BEEF CATTLE FEEDING IN THE NORTHERN GREAT PLAINS

Main Investigator: Warren L. Trock.

Status of Research and Publications: Research completed. Publication of research report is expected by December 15, 1962.

Agency: Montana State College, Department of Agricultural Economics, under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 8:2-54.

Research Problem. The availability of feed, cattle and other resources in the Northern Great Plains has prompted farmers, ranchers and businessmen to become interested in the further development of cattle feeding. While prospects for new and expanded feeding enterprises appear to be good, a careful study of the potential and prospects for cattle feeding in the region is needed. The competitive position of Northern Great Plains cattle feeders needs to be determined, and the effects of an expansion in feeding should be estimated.

Hypothesis. It is hypothesized that cattle feeders in the Northern Great Plains can be competitive with feeders in other regions in the markets for fed cattle and that cattle feeding will, therefore, develop in the region.

Method of Study. Projections of resource use and probable production of agricultural commodities were employed to estimate future output of feed and cattle in the Northern Great Plains. Possible levels of production of fed cattle were then described.

The evaluation of the prospects for development of cattle feeding in the region was based on (1) observations of problems, needs and potentials of production, (2) an analysis of production costs, (3) a study of possible market outlets, (4) an analysis of marketing costs for fed cattle, and (5) other pertinent factors.

Conclusions were drawn relative to the likely development of cattle feeding in the region, and suggestions were made which would facilitate this development.

Major Findings. Factors which will contribute to or impede the development of cattle feeding include: (1) Data concerning costs of cattle feeding indicated that there are some cost advantages which might be exploited by Northern Great Plains cattle feeders. (2) There are and will be opportunities for marketing fed cattle in the growing west coast markets. (3) Seasonality of production of feeder and fed cattle is now a problem. Year-around feeding operations must be developed if feeders are to be competitive. (4) Changes and developments in the packing industry must be watched because of the effects they have on markets for fed cattle. (5) Cattle feeding in the Northern Great Plains will be increased so that by 1975 up to 1.5 million cattle will be placed on feed annually. This is about double the number on feed on an average in the 1956-60 period. (WLT)

84. A MANUAL OF PROCEDURES FOR THE OPERATING AND CAPITAL BUDGET PROCESSES IN LOCAL GOVERNMENTS AND A STUDY OF THE FEASIBILITY OF COMPARATIVE MEASUREMENTS

Main Investigators: Lennox L. Moak, John L. Fava, and Kathryn W. Killian.

Status of Research and Publications: Study begun in March 1961, scheduled for completion in March, 1963. All information relating to current practice in preparation, adoption, and administration of the operating budget has been obtained from 17 cities cooperating in study. Findings and conclusions have been written in draft form. Field work for determination or current practice in capital budgeting mostly completed. Feasibility study on comparative measurement techniques has been concluded; findings are also in rough draft form. Final report is anticipated in June, 1963.

Agency: Municipal Finance Officers Association, under sponsorship of Ford Foundation. For what portion of the project relating to the feasibility of comparative measurement techniques, the services of the Citizens Budget Commission, Inc. are being utilized.

Previous Digest report: 8:2-67.

Research Problem. In many respects this is not a research project; in others it is. The objective is to discover and record desirable practices in municipal budgeting and to make some contributions to knowledge in the field of feasibility of comparative measurements. Despite the wealth of literature in the field of budgeting, that relating to processes themselves is comparatively meager. Therefore, harassed finance officers are forced to live "according to their wits" to meet the exigencies of their local situation -- particularly in the field of capital budgeting. The current project seeks to determine from existing practices the desirable elements of the operating and capital budget processes and to provide some reevaluation of those elements traditionally included in these processes as well as those currently excluded.

Previous Relevant Research. Previous research has been conducted over the past six years by the Citizens Budget Commission in the field of work measurements and over the past two decades by the Municipal Finance Officers Association in the field of improved budgetary techniques for operating budgets.

Method of Study. The study initially involved development of an outline for the project itemizing the bases and steps in the operating and capital budget processes. Compilation of a bibliography relating primarily to budgeting in local governments has begun. Primary source materials for the study have been received from fourteen cities in the United States and three cities in Canada. Each city has submitted selected documents relating to local budget preparation, execution, and control. Currently, these documents are being reviewed and a description of the budget process as it is currently practiced is being drafted. In addition, research is being conducted to determine the fields in which work measurements are feasible and useful. The findings of each of the foregoing are being analyzed to segregate the elements of a desirable budget process. In order to complete this study, consultants have been engaged for review of the draft materials. (LLM)

85. STATE ECONOMIC PROJECTIONS

Main Investigator: Sidney Sonenblum.

Status of Research and Publication: The Outdoor Recreation Resources Review Commission Report No. 23 will contain the 1976 State projections on population, labor force, and income prepared by the National Planning Association. The report will be published in November, 1962.

Agency: National Planning Association.

Previous Digest report: 8:2-69; 9:1-48. (SS)

86. OCCUPATIONAL EMPLOYMENT PROJECTIONS FOR SOUTHERN STATES

Main Investigators: Mannie Kupinsky, Paul Schweitzer.

Status of Research and Publication: Preliminary planning and collection of data underway

Agency: National Planning Association.

Previous Digest report: None.

Research Problem. Analysis of state changes in occupational distribution of employment under the impact of emerging economic conditions such as new technologies, changing consumption habits, inter-regional migration of plant and people, and the private and public policies designed to adjust to these changing conditions. (SS)

87. REGIONAL ECONOMIC PROJECTIONS SERIES

Main Investigators: Sidney Sonenblum and Mannie Kupinsky.

Status of Research and Publication: Total employment for 1947, 1957, 1960 and 1976 estimated for eash State by major industry division and two-digit manufacturing industries. Personal income and components (such as labor income, proprietors income, etc.) and gross product originating and components (such as employee compensation, dividends, interest, etc.) estimated for each State for 1947, 1957, and 1976. Total population projected to 1976 for each State. Estimates of age and sex distribution in 1976 for each State in preparation. The employment, income, gross product originating, and population data with analyses of these data comprise the 1962 edition of the Regional Economic Projections Series. The first report of the Series covering employment has been published. The Series is available on an annual subscription basis.

Agency: National Planning Association.

Previous Digest report: 7:2-p. 53. (SS)

88. THE OMAHA RESIDENTIAL REAL ESTATE MARKET

Main Investigators: Edgar Z. Palmer and Frank X. Murray.

Status of Research and Publication: Almost ready to go to the printers.

Agency: University of Nebraska, Bureau of Business Research.

Previous Digest report: None.

Research Problem. This project represents a study of the private real estate market of Omaha and vicinity. The purpose of the study is to examine the real estate transactions of this area to determine the cause and effect relationships that may influence the market.

Method of Study. Only individual private dwellings were included in the study; all commercial and industrial buildings, apartments, and other nonresidential structures were excluded. It was thought that (1) newer houses would be more desirable and therefore easier to sell at a greater portion of the asking price; (2) the demand for houses with a larger number of rooms would be greater due to the increase in family size since the war; (3) higher priced houses would be more difficult to market; and (4) sellers waiting longer to complete their sales would on the average receive a lower percentage of their original asking price. Other aims of this study were to find which factors can best explain the variation in sale prices, and to see if there are any variables which could give some indication of the condition of the real estate market.

The listings of the Omaha Realty Exchange Board were used as a basis for this study and are assumed to be representative of all real estate activity in the Omaha area. From these listings a sample was selected and used as a basis for determining the results and conslusions. (EZP)

89. THE NEW JERSEY REGIONAL URBAN RENEWAL SURVEY

Main Investigators: Sidney L. Willis and Walter D. Gaby.

Status of Research and Publications: All of the research has been completed.

Nine technical reports and final report are in draft form and are being reviewed by the Urban Renewal Administration. Printing of the publications awaits the authorization of the Federal government.

Agency: State of New Jersey, Department of Conservation and Economic Development, Division of State and Regional Planning, and Rutgers University, under sponsorship of U. S. Housing and Home Finance Agency.

Previous Digest report: 8:2-71. (SLW)

90. THE INDUSTRIAL DISTRIBUTION OF EMPLOYMENT, PATTERNS AND CHANGE 1947-1967

Main Investigator: Lowell D. Ashby.

Status of Research and Publications: Preliminary draft, 90 per cent complete.

Agency: University of North Carolina, School of Business Administration.

Previous Digest report: None.

Research Problem. The achievement of understanding concerning the employment structure of the nine Census divisions, the forty-eight states and the District of Columbia.

Previous Relevant Research. By the same author "Economic Orientations to Urbanization" and "Industrial Development Trends and Economic Potential" in Urban Growth Dynamics In a Regional Cluster of Cities (Chapin-Weiss, Editors) New York: John Wiley and Sons, Inc., forthcoming. (See Research Digest 9:1-52.) By the same author: The North Carolina Economy, Its Regional and National Setting with Particular Reference to the Structure of Employment. Research Paper Number 7, viii, 305, School of Business Administration, University of North Carolina, Chapel Hill, March 1961. (See Research Digest 9:1-53.)

Hypotheses. While many hypotheses are suggested, not all are subject to formal test, since the data used are at a rather high level of aggregation. Decisions in firms, families and governmental units usually are made in fine detail concerning the exact industrial-regional commitment.

Various measures are applied, however, to check the hypothesis that regions and states are becoming more diversified and structurely more alike.

Method of Study. The basic methods are empirical. Techniques applied permit analysis of employment expansion rates into portions related to industry mix and portions related to the unique competitive performance of the region.

Also a new index has been devised which permits differentiation of structural from non-structural displacement in the growth process.

Major Findings. It is found that the competitive effects in regions are becoming stronger relative to the compositional (industry mix) effects. This is apparently the result of the increasing industrial "homogenization" of regions. (LDA)

91. INDUSTRY AND LOCAL GOVERNMENT

Main Investigator: Ruth L. Mace.

Status of Research and Publication: Completed. Publication expected early 1963.

Agency: University of North Carolina, Institute of Government.

Previous Digest report: 6:2-30.

Research Problem. An examination of relationships among new plants, industrial development organizations, and municipal governments in ten North Carolina cities. (RLM)

92. CHANGES IN CENTER CITY PROPERTY VALUES, 1950-1960, IN TWO NORTH CAROLINA CITIES

Main Investigator: Ruth L. Mace.

Status of Research: To be completed before the end of this year. This will be prepared for publication as a magazine article.

Agency: University of North Carolina, Institute of Government, in cooperation with the Greensboro (N.C.) City Planning Department, the Greensboro firm of Robins and Weill, and the Forsyth County Tax Department.

Previous Digest report: None.

Research Problem. An examination of trends in the value of real property in the central areas of Greensboro and Winston-Salem, North Carolina in the decade of the fifties.

Method of Study and Major Findings. These will be set forth in a paper currently in preparation which will be available in mimeographed form in late November. Hopefully, it will appear in one of the professional journals in early 1963. (RLM)

93. STUDY OF MUNICIPAL FINANCES IN NORTH CAROLINA

Main Investigator: Warren Jake Wicker.

Status of Research and Publication: Research is approximately 75% complete. Publication of findings (offset) expected during spring of 1963.

Agency: University of North Carolina, Institute of Government.

Previous Digest report: None.

Research Problem. To determine the patterns of municipal revenues and expenditures among North Carolina cities; to indicate trends with respect to both between 1950 and 1960; and to analyze these findings, in light of the allocation of responsibility for governmental functions among the cities, the counties and the State, and in relation to size of city, growth rates, and general fiscal policies.

Method of Study. A uniform classification of revenues and expenditures has been developed into which audited revenues and expenditures of a 33-city sample are being placed. In addition, information on a statewide basis (415 Municipalities) is being developed with respect to selected classes of both revenues and expenditures. (WJW)

94. AN IDENTIFICATION OF COMMUNITIES IN THE UNITED STATES MAKING THE GREATEST PROGRESS IN COMPREHENSIVE PLANNING AND DEVELOPMENT

Main Investigator: Julia Anne Connolly (under direction of John A. Parker and Robert T. Daland)

Status of Research and Publication: Available from Urban Studies Program, P. O. Box 1167, Chapel Hill, N.C. $1.00.

Agency: University of North Carolina, Institute for Research in Social Science Urban Studies Program.

Previous Digest report: 5:2-10.

Research Problem. The purpose of this study was to formulate and test an approach for evaluating the quality of local planning throughout the nation. The information derived from this study and subsequent refinements will be used to identify the outstanding planning programs for more intensive research in the parent study, The Role of the Planner. The aim of the latter study is to identify the role or roles played by the planner in the performance of his position, as perceived by planners and others, to consider trends that may affect the planner's role, and to relate the findings of such investigations to planning education.

Previous Relevant Research. Robert T. Daland and John A. Parker, "Roles of the Planner in Urban Development," Chapter 7 in Urban Growth Dynamics (Chapin and Weiss, editors), New York: John Wiley & Sons, Inc., 1962.

Major Findings. While this report makes no pretense to present definitive conclusions, there are, however, general observations that seem reasonable to make about the results of the questionnaire. First, there are at least 20 communities or areas in the United States that are consistently considered to be making the greatest progress in comprehensive planning and development. Second, it is indicated that the greatest progress in planning is being made in the East, North Central and Pacific regions in cities with a population of over 200,000. Third, the panel members generally selected the local public planning agency as the organization responsible for the achievements in planning. Likewise, the survey indicated that the director of the public agency is the individual most frequently accountable for the success of the planning program. Other inferences and observations have been made in this report, but these are considered to be the most reliable. (JAP)

95. FACTORS INFLUENCING LAND DEVELOPMENT: EVALUATION OF INPUTS FOR A FORECAST MODEL

Main Investigators: F. Stuart Chapin, Jr., and Shirley F. Weiss, in collaboration with Thomas G. Donnelly.

Status of Research and Publications: Completed. Available from Urban Studies Program, P. O. Box 1167, Chapel Hill, N. C., August 1962. $3.00.

Agency: University of North Carolina, Institute for Research in Social Science, Urban Studies Program, under sponsorship of U. S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. The objectives of this study were: (1) to perfect an approach for analyzing a range of factors commonly associated with land development to determine their influence, individually and in various combinations as a mix, on the distribution and intensity of development in a metropolitan area, and (2) to utilize these results in the formualtion of an apporach to forecasting land development in a metropolitan area. The influence of highways on patterns of land development in urban areas was given special attention in relation to other factors that precondition an area for development.

Previous Relevant Research. F. Stuart Chapin, Jr., G. C. Hemmens, and Shirley F. Weiss, in collaboration with Thomas G. Donnelly, Land Development Patterns in the Piedmont Industrial Crescent, Urban Studies Program, P. O. Box 1167, Chapel Hill, N. C., December 1960, $1.00; (Digest report 7:2-41; and Chapter 13 in Urban Growth Dynamics (Chapin and Weiss, editors), New York: John Wiley & Sons, Inc., 1962.

Major Findings. On the basis of the combined experience of the present study and the 1958-60 pilot study under a grant from the Ford Foundation, some firm observations were made about the analytical framework utilized in explaining land development factors. As a research tool multiple regression analysis was found to be useful and flexible, but not necessarily precise in filtering out the net influence of independent factors. While the statistical technique is quite valid, the nature of the inputs is such that it is almost humanly impossible to specify independent variables that are "pure" in the sense that they have little intercorrelation with other independent variables. In the case of the Greensboro, N. C., urban area, 14 independent variables were culled for final testing. Allowing for crude time lags, these succeeded in explaining 66.7 per cent of total land in urban use in 1960, and 52.9 per cent of dwelling density in 1960. Seven independent variables demonstrating a strong influence in the mix were finally selected for consideration as inputs in the forecast model: marginal land not in urban use, accessibility to work areas, assessed value, travel distance to nearest major street, distance to nearest available elementary school, residential amenity, and availability of sewerage. Whether all these variables are manageable for inclusion in the forecast model, and whether an even smaller number can be selected, remains to be determined. This concern for manageable variables, it should be noted, led to the shift in focus from explaining deviation from a circular normal template in the pilot study to explaining the observed pattern of development in the present study.

The probabilistic synthetic model formulated in this study, and described in a schematic diagram, is a dynamic model with a recursive feature to permit distribution of development in increments. It is a construct for the simulation of the many interrelated human actions that follow from decisions to put land into use for urban activities. However, it is an incomplete model, in that it does not take into account the behavioral decision variables but deals only with actions that follow from the decisions. In a broader sense it is only one system of a series of systems which regulate the course of events in the development of urban areas. The model proposed is in a provisional form, and even assuming modifications in the course of experimental tests currently underway, it is bound to require further modification when used in a large systems analysis framework, which takes into account economic, cultural, as well as physical considerations of urban development. (FSC, Jr., and SFW)

96. INDUSTRY AND TRANSPORTATION STUDY, EUGENE-SPRINGFIELD AREA, OREGON

Main Investigators: Donald N. Johnson, Don V. Martin, William Haly III, and J. David Rowe.

Status of Research and Publications: Research completed and results published in three volumes as follows: Part I. Employment Forecast, An Estimate of Lane County Employment for 1980-85. Part II. Industrial Location, A Study of Future Land Needs and Location of Industry. Part III. Highway Study, A Research Study of Traffic Patterns and Highway Needs for 1960 and 1980-85. Part III is published in two sections which are available separately (Section I: Highway Use and Needs; Section II: Study Procedures and Premises.)

Agency: University of Oregon, Bureau of Municipal Research and Service under sponsorship of Central Lane Planning Council, City of Eugene, City of Springfield, Lane County, Oregon State Highway Department, U. S. Housing and Home Finance Agency and U. S. Department of Commerce, Bureau of Public Roads. (DNJ)

Previous Digest report: 8:1-55, 8:2-78.

Research Problem (Part I.) To develop a method to aid in forecasting future employment which measures extent to which employment in various industries in areas of similar size is associated with the population levels of the areas.

Previous Relevant Research. Studies by National Resources Planning Board; P. Sargent Florence; Alexandersson, and others.

Method of Study. Employment was tabulated for 147 classifications for each of 35 SMSAs in nation with population of from 200,000 to 300,000. Ratios of employment per 1,000 persons were computed, and indexes of area employment variation were developed.

Major Findings. Indexes for 25 manufacturing industries and 77 non-manufacturing industries were within a reange in which the relationship between population and employment was considered a significant factor.

Research Problem (Part II.) To develop a method to forecast existing and future traffic pattern through use of gravity model without use of home interview O-D study.

Previous Relevant Research. Gravity models developed by Alan M. Voorhees and others.

Method of Study. Detailed studies of existing and future employment, population, dwelling units, and car ownership for the zones within the area were prepared. Analyses were also made of the distribution of vehicle trips by purpose, the average number of trips per vehicle, interzonal travel times, and travel time factors by trip purpose. Comprehensive traffic counts at a number of screen lines were made.

Major Findings. Zone-to-zone traffic volumes for the present period can be estimated through use of a gravity model, provided that the model can be tested and adjusted by comparing the results with traffic counts at a large number of screen lines within the area.

97. ANALYSIS OF TRIP DISTRIBUTION IN AN URBAN AREA

Main Investigator: Anthony R. Tomazinis.

Status of Research and Publication: Research Completed.

Agency: Penn-Jersey Transportation Study.

Previous Digest report: 9:1-58.

Major Findings. Tests were conducted on total auto person trips, total transit person trips, first work auto trips, first work transit trips, and truck trips. The tests have demonstrated an ability to simulate (and predict) the pattern of the trips of urban activities.

The method model is based on the probability theory. It is based on the following two assumptions: (a) that the destination of a trip is selected among trip destinations with equal probability of attraction; and

(b) that for a given outcome of a trip purpose the shorter the trip the greater the satisfaction it provides to the traveler.

The mathematical expression of these two assumptions produces the model of trip distribution utilized by the PJ Transportation Study. (ART)

98. PROJECT WAMBY, THE ECONOMIC AND SOCIAL IMPACT OF NEW AND IMPROVED HIGHWAYS

Main Investigators: John C. Frey, Robert D. Pashek, and H. Kirk Dansereau.

Status of Research and Publications: Research on one segment of project, the Blairsville Case Study, reported below, is complete. Published as Blairsville: A Bypass Study, The Economic and Social Impact of a Highway, A.E. & R.S. 35, The Pennsylvania State University, University Park, Pennsylvania, 1962.

Agency: Pennsylvania State University, Department of Agricultural Economics and Rural Sociology, College of Business Administration, and Department of Sociology under sponsorship of Pennsylvania State Department of Highways and U. S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. To analyze the socio-economic change that occured during the period 1949-59, and to relate these phenomena to the relocation of U. S. 22, an open access highway which bypassed the Blairsville Business District in 1953.

Previous Relevant Research. Many other highway research projects in various states have carried out and published bypass studies. The Blairsville study drew upon this material and upon the research reported in The Economic and Social Impact of Highways: A Progress Summary of the Monroeville Case Study, Progress Report 219, the Pennsylvania State University Agricultural Experiment Station, University Park, Pennsylvania, 1960 and in Planned Versus Unregulated Development in a Pennsylvania Community, A Case Study, A.E. & R.S. 23. The Pennsylvania State University, University Park, Pennsylvania, 1960.

Method of Study. Historical case study data were back-dated for the study period, through the use of records of local, county, state and federal governments and private profit and non-profit making organizations. Techniques of analysis were those in current and common use by economists and sociologists.

Major Findings. Community leaders and "average citizens" felt that the bypass has proved beneficial. Benefits were thought to acrue to both users and to non-users.

New land uses along the bypass were predominately commercial and light industrial. The land use pattern along the old route (through the business district) remained virtually unchanged. Factors other than the bypass accounted for the greater part of the land use change in the borough during the years 1949-59.

Rates of increase in the value of taxable real property for Blairsville as a whole for the study period appeared to be unaffected by the bypass. However, rates of increase in the value of taxable real property were higher along the bypass than for the rest of the borough.

There is no evidence that the construction of the bypass was related to change in the cost of local government. On the other hand, there was some evidence that the bypass had some effect upon local taxation.

While the number of businesses in the Blairsville area declined slightly during the period 1949-59, employment and power consumption increased. Removal of through traffic made the main business district more attractive as a place to stop. Of the ten new businesses located on the bypass, eight were highway-user oriented.

The removal of through traffic from the main business district alleviated but did not eliminate congestion. Had the bypass not been built, it was estimated that congestion would occur from 7:00 A.M. until 12:00 midnight in 1959.

Change in population appeared not to have been related to the construction of the bypass. The pattern of functional distribution of the labor force remained unchanged. There was a heavy out-migration of teen-age and young adult population.

Blairsville experienced heavy in-migration during the study period. In-migrants were better educated and had a higher median income than the non-migrants. In-migrants had a greater degree of participation in community activities than non-migrants. (CPG)

99. THE SPATIAL DISTRIBUTION OF RESIDENCES AND WORK PLACES IN URBAN AREAS

Main Investigator: Louis K. Loewenstein.

Status of Research and Publication: Completed. (Doctoral dissertation.)

Agency: University of Pennsylvania, Department of City Planning.

Previous Digest report: None.

Research Problem. This dissertation is an empirical study of the location of residences and work places as they are differentiated by eight major industrial categories. From these spatial distributions an approach was suggested to simulate and to study the journey-to-work, based on the flow of employees from home to work within five concentric circles encompassing an urban area. Moreover, a new method was offered for comparing the location of urban land uses between and within cities, a comparative study was made of the journey-to-work patterns in five cities, and a technique was illustrated for converting data from the 1960 Census into spatial parameters. Throughout the study emphasis was placed on: (1) explaining the reasons for the observed locational patterns based on the nature of these activities, and (2) showing the differences between, and the similarities within these industrial categories with respect to their spatial properties.

Method of Study and Hypotheses. The approach suggested for simulating the journey-to-work bypasses the typical origin and destination study and instead is based on synthesizing empirical regularities in the spatial distribution of places of work and places of residence which were noted in five urban areas. Two assumptions underlie this approach: (1) the type of activity which characterizes a work place is of fundamental importance in determining where that work place is located, and (2) the location of a residence is, in part, affected by the location of the particular work place which engages the employee since he seeks to minimize his journey-to-work, *ceteris paribus*. Hence, there is an association between the location of residences and the type of activity in which the household head is engaged.

Major Findings. That the location of work places was spatially differentiated by the industry of employment was demonstrated by studying both visually and statistically the location of land uses in 44 cities. A method was devised which standardized various land use arrangements onto a common scale consisting of five concentric rings. The allocation of land devoted to different uses was computed with a single measurement, the index of concentration. An analysis of variance was made indicating that there was a greater difference in these allocations between these eight categories than within them; i.e. there was a significant difference in these land use patterns at the 1% level ("F"=6.82 with 3.18 being considered significant). Other analytical methods were used to show that the location of residences and the trips between home and work were similarily differentiated by the industry of employment.

Data from transportation studies in Chicago, Detroit, Pittsburgh, Minneapolis, and St. Paul were obtained and the percentage distribution of the number of employees who lived and worked in each of the five rings was computed for each industry of employment. The unweighted arithmetic means of these percentages were determined. In conjunction with the number of workers who live in an urban area as reported by the U. S. Census for each industrial type, these values may be used to distribute the worker's trips to any one of the rings from any one of the rings. A further refinement of this annular distribution was explained which involved the superimposition of a comparably derived sectoral distribution of residences and work places. This method was illustrated for the Philadelphia area and compared with empirical data from an origin and destination study in the region. (LKL)

100. MOTIVE FORCES BEHIND THE PHYSICAL FORM OF THE SPANISH COLONIAL CITY OF 16TH CENTURY SOUTH AMERICA

Main Investigator: Ralph A. Gakenheimer.

Status of Research and Publications: Research completed during two years in Peru and at principal sources of documantation in North America. Manuscript in process.

Agency: University of Pennsylvania, Department of City Planning. (Doctoral dissertation.)

Previous Digest report: None.

Research Problem. To inspect the social, political and economic fabric, as well as the physical form, of the city of 16th century Peru to explain its particular physical structure and character, organization and use of land and character of establishments.

Previous Relevant Research. Master's thesis, which concerned the influence of the Spanish laws for founding of towns on the character of the colonial city in Latin America.

Hypotheses. The social, political and economic character of the urban civilization of the time will be significant indicators of physical form and that their regulation by various agents provides a highly controlled context for study of these cities. (RAG)

101. DATA REQUIREMENTS AND METHODS OF ANALYSIS FOR METROPOLITAN ECONOMIC PLANNING AND DEVELOPMENT IN PENNSYLVANIA

Main Investigators: Morris Hamburg and John H. Norton.

Status of Research and Publications: First of three reports, Economic Base Studies for Urban Planning and Development in Pennsylvania completed and available from Bureau of Statistics, Department of Internal Affairs, Room 286, Capitol, Harrisburg, Pennsylvania.

Agency: University of Pennsylvania, Department of Economic and Social Statistics, under sponsorship of Commonwealth of Pennsylvania, Department of Internal Affairs.

Previous Digest report: None.

Research Problem. The first report presents a description and evaluation of economic base studies which have been carried out in Pennsylvania under the Urban Planning Assistance Program ("701 program") of the Federal Housing and Home Finance Agency. The second study will be an evaluative report on data availability for economic studies used in connection with metropolitan planning and development in Pennsylvania, with recommendations on possible improvements, changes and innovations in types of data which might be used for this purpose. The third and final study will attempt to construct a method for analyzing factors in metropolitan development for the purpose of enabling planners to study the implications and outcomes of alternative planning policies. Recommendations will be made on desirable types of metropolitan economic analysis.

Major Findings (First Study. The major deficiency of the "701" economic studies in Pennsylvania is their descriptive nature and lack of analytical content. Generally, there seemed to be a direct relationship between size of area studies and the depth and completeness of the surveys. There was a general absence of careful statistical or economic analysis of past trends, the lack of explicit statements of relationships between relevant demographic and economic factors or serious analysis of dynamic factors making for change in underlying structural relationships. Projections tended to be based on unstated and unformalized presuppositions.

There seems to be a need for the adoption of logical frameworks of analysis in the "701" economic base studies. More careful and detailed specifications of community and regional long range goals are needed. While doubtless much of the information assembled in the "701" economic base studies is potentially useful, there appears to be considerable room for improvement, both from the standpoint of furnishing of more specific and more carefully formulated guidelines by sponsoring agencies and the carrying out of studies with greater depth and utility by the consultants or planning groups. (MH)

102. LOCAL AND REGIONAL IMPACT OF MILITARY EXPENDITURES IN THE UNITED STATES

Main Investigators: Walter Isard, James Ganschow and others.

Status of Research and Publications: In process. Unadjusted primary data resulting from first phase of study published as Awards of Prime Military Contracts by County, State, and Metropolitan Area of the United States, Fiscal Year 1960. Regional Science Research Institute, G.P.O. Box 8776, Philadelphia 1, Pennsylvania, 128 pages. Libraries, businesses and government agencies, $2.00 Individuals, educational, religious and other non-profit groups, $1.00.

Agency: University of Pennsylvania, Department of Regional Science, under sponsorship of U. W. Department of Commerce, Area Redevelopment Administration.

Previous Digest report: None.

Research Problem. To analyze and evaluate local and regional economic effects of changes in levels and composition of defense expenditures. (WI)

103. TRIP LENGTHS AMONG URBAN ACTIVITIES

Main Investigator: Anthony Tomazinis.

Status of Research and Publications: In process.

Agency: University of Pennsylvania, Institute for Urban Studies, under the sponsorship of the U. S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. This study proposes to study and analyze in depth the variations of the length of trips made by the people living in the Philadelphia-Camden-Trenton urban comples. Relationships between the trip length and the type and location of an establishment, the density of the area, the type of the area, the income of the households, the mode of travel and the purpose of travel will be investigated with the help of electronic computers. The project will be based on the data collected and already initially processed by the Penn-Jersey Transportation Study. In this respect the project is the first analysis in depth of the pertinent data collected by the P.J.T.S. and carries the professional analysis attempted currently by the staff of P.J.T.S. into the areas of advanced research which might ultimately help P.J.T.S. and other planning agencies in this or other urban areas to recommend land-use patterns and transportation systems which maximize the satisfaction of the people in the area and provide the maximum return for each dollar spent on transporation investments. (GM)

104. RELOCATION OF ELDERLY PERSONS

Main Investigators: Chester Rapkin, Mary K. Nenno.

Status of Research and Publications: Three and one-half year study, recently initiated.

Agency: University of Pennsylvania, Institute of Urban Studies, in cooperation with National Association of Housing and Redevelopment Officials, and under sponsorship of the Ford Foundation.

Previous Digest report: None.

Research Problem. The study is devoted to finding procedures for ameliorating the plight of elderly persons who are relocated because of urban renewal, highway construction, and other governmental programs. This project consists of two parts. First, a series of papers will be prepared dealing with the housing problems of the elderly in general and their relocation needs specifically. Second, demonstration projects will be undertaken in approximately five cities, to be selected by the Ford Foundation, to test methods through which the relocation of elderly persons can be facilitated. A final report will be issued containing the study papers and summaries of the experiments conducted in the various cities, and with discussion of the possible application of lessons gained to relocation in other cities or to other groups of persons being relocated. (GM)

105. THE DECLINE OF CITIES

Main Investigator: Erwin A. Gutkind.

Status of Research and Publications: Completed. Published October, 1962, by the Free Press of Glencoe.

Agency: University of Pennsylvania, Institute for Urban Studies.

Previous Digest report: 3:2-51.

Major Findings. This book focuses on how the city can regain its creative leadership. It explains the dissociation of city life from the great promises it held and establishes the foundations for a new structure of settlement and pattern of living. The development of cities is reviewed against the historical background of changing concepts of space, time, and scale, and the social implications of this evolution is discussed. A program of action is offered to deal with the problems of space, scale and sprawl, with decentralization, dispersal and regional and national planning; and with the implications of increased mobility. The author's proposals would integrate the neglected countryside and overvalued urban communities in new and efficient ways. (GM)

106. [illegible] POLICY

Main Investigator: William G. Grigsby.

Status of Research and Publication: To be published in Spring, 1963 by the University of Pennsylvania Press.

Agency: University of Pennsylvania, Institute of Urban Studies, under sponsorship of Ford Foundation.

Previous Digest report: None.

Major Findings. This study examines selected aspects of the structure and dynamics of housing markets in an attempt to illuminate various issues of public housing policy both at the national and local level. Among the specific areas that are examined are the market for new construction, maintenance of the standing stock, filtering, and the various existing and potential programs of urban renewal. (GM)

107. THE PLACE OF THE IDEAL CITY IN URBAN PLANNING

Main Investigator: Thomas A. Reiner.

Status of Research and Publication: To be published in fall of 1962 by the University of Pennsylvania Press.

Previous Digest report: 6:1-20.

Major Findings. This monograph is a presentation and analysis of the efforts to present solutions to twentieth century urban renewal problems which have been made in the form of ideal communities. It considers the principles and propositions upon which these are based, goals they would achieve, and the implication of these for city planning. (GM)

108. REQUIREMENTS FOR OPEN SPACE LAND IN URBAN AREAS

Main Investigators: William L. C. Wheaton, Ian McHarg, Paul Davidoff, William Grigsby and Nohad Toulan.

Status of Research and Publications: Research still in early stage of collecting information and data. It is expected that the first of two reports will be ready for publication early in the Spring of 1963.

Agency: University of Pennsylvania, Institute for Urban Studies, under sponsorship of The Urban Renewal Administration, the Commonwealth of Pennsylvania, and the State of New Jersey.

Previous Digest report: None.

Research Problem. The project consists of several studies designed to determine the requirements and the needs for open space in metropolitan areas. The outline of each study, however, is so arranged that the final findings will fit in an over-all comprehensive report on the various aspects involved in preserving open land.

Method of Study. The first study involves the preparation of estimates of prospective requirements for each class of open space in terms of area and location. The Philadelphia Standard Metropolitan Area was chosen as a case study. A second study will examine the suitability of various types of controls, or public policies to achieve the reservation of open space in accordance with the classification system developed in the first study.

The third study consists of three phases--the first of which examines the economics of development rights; the second will estimate the actual costs of a complete package program in the Philadelphia Metropolitan Area; and the third will examine the fiscal consequences of alternative open space programs as one way of approaching the question of the fiscal and political feasibility of a broad-gauge program. The major impact studied would be the consequences for the property tax in various types of local government jurisdictions. The fourth study involves Design Treatment in Open Space, which will limit itself to the treatment of the kinds of metropolitan open space which are eligible for Federal grants under the Housing Act of 1961. (GM)

109. MIGRATION AND URBANIZATION IN THE UNITED STATES, WITH SPECIAL REFERENCE TO RECENT TRENDS

Main Investigators: D. S. Thomas, H. T. Eldridge and A. R. Miller.

Status of Research and Publications: Two technical reports have already been issued: Population in 1960 of Areas Annexed to Large Cities of the United States between 1950 and 1960 by Age, Sex, and Color (Technical Paper No. 1, November 1961) and Population in 1960 of Areas Annexed to Large Cities of the United States between 1950 and 1960 by Household Relationship and Marital Status (Technical Paper No. 2, August 1962). A third such report is now being compiled and will deal with the adjustment of data on family income to obtain area comparability between 1950 and 1960.

Agency: University of Pennsylvania, Population Studies Center.

Previous Digest report: 8:2-85.

Research Problem. Analysis of selected aspects of the growth of the largest cities of the United States and their metropolitan areas in recent decades. Emphasis is on changes in population size and composition effected by migration and on concomitant trends in other social and economic characteristics. The primary source materials are from the censuses of population and arrangements have been made with the Bureau of the Census for certain special tabulations of 1960 Densus data on migration to cities. (DST)

110. NEW RESIDENTIAL CONSTRUCTION IN OLDER NEIGHBORHOODS OF PHILADELPHIA FROM 1951 TO 1960

Main Investigators: Bernard C. Meltzer, Albert Greenfield and Company.

Status of Research and Publications: Study is part of an Urban Renewal Demonstration Project. Interim Report No. 7 authorized for release May 25, 1962. 105 pp., mimeographed. Limited number of copies available from agency.

Agency: City of Philadelphia, Redevelopment Authority, under sponsorship of U. S. Housing and Home Finance Agency.

Previous Digest report: 8:2-87.

Research Problem. This study is concerned with the problems connected with the filling in of existing gaps or gaps which may be created by clearance in rehabilitation neighborhoods. The primary purpose of the study is to develop a guide to judge the feasibility of building new houses to fill gaps in residential neighborhoods.

Method of Study. One hundred properties in older neighborhoods on which new dewllings had been constructed between 1951 and 1960 were studied by means of an intensive program involving owners, builders, realtors, officers or mortgage lending institutions, inhabitants of the neighborhoods studied, and the local tradesmen.

Major Findings. Older areas where new houses were constructed were generally in good physical condition, and were characterized by good neighborhood homogeneity. The ethnic factor is a most important determinant of new construction in older neighborhoods. Economic motivation, expressed as the desire for a good investment or for rental income, appeared to be the primary factor responsible for the new houses in only one-third of the cases studied.

New construction in older areas has tended to suffer from a heavy financing penalty. Lack of available sites at reasonable prices was also a major factor in inhibiting new construction in older areas. In general, it appears that, under circumstances similar to those in the cases studied, it is both desirable and practical to encourage construction of new homes in older neighborhoods. (WHL)

111. URBAN RENEWAL IMPACT STUDY

Main Investigator: B. Warner Shippee. Edward E. Smuts, consultant.

Status of Research and Publications: Research completed. Final reports being prepared for early publication.

Agency: Action-Housing, Inc., Pittsburgh. Other sponsoring, cooperating and consulting agencies: Allegheny Conference for Community Development; Allegheny County Redevelopment Authority; City of Pittsburgh; Health and Welfare Federation of Allegheny County; Pennsylvania Economy League (Western Division;) Pittsburgh Regional Planning Association; Regional Industrial Development Corporation, University of Pittsburgh; Urban Redevelopment Authority of Pittsburgh.

Previous Digest report: None.

Research Problem. The Urban Renewal Impact Study is an analysis of the total problem of blight and decay in Pittsburgh and Allegheny County and the scope and complexity of a comprehensive urban renewal program.

Major Findings. The study finds that urban renewal in Pittsburgh has made substantial accomplishments during the past eighteen years. Nevertheless, renewal projects in planning or underway will affect only 16 per cent of the deficient housing in Allegheny County. Eighty of the 129 municipalities in the County have substantial problems of blight but only 13 have undertaken plans for renewal.

The Study calls for an organized and programmed advance on the local renewal front, with new resources of thought, administrative technique and finance marshalled to support the commitment already made to community improvement and renewal.

The major specific recommendations coming from the Study include: (1) Take advantage of population trends and housing requirements and adapt urban renewal efforts to these trends and requirements. The Study identifies the next few years (1962 to 1968) as the most opportune time to push ahead with urban improvement in Allegheny County -- before family formation of the large post-war generation intensifies the demand for housing and upon community favilities. (2) Use urban renewal to strike at the sources of blight and to enhance economic opportunity rather than limit renewal to the removal of symptoms. (3) Establish and sustain County-wide renewal leadership through the County government, County programming and County sources of financing. (4) Encourage the development of program financing rather than project financing in the Federal Urban Renewal Program.

(5) Develop programs for the preservation and renewal of steep slope areas which make up much of Allegheny County's most picturesque natural heritage. (6) Coordinate urban renewal with highway planning, with school planning and with other capital improvement programs from planning through execution. (BWS)

112. DATA PROCESSING AND SIMULATION TECHNIQUES

Main Investigator: Richard K. Gruenther.

Status of Research and Publications: Report published by agency, October, 1962. 42 pp. Offset.

Agency: City of Pittsburgh, Pennsylvania, Department of City Planning.

Previous Digest report: None.

Research Problem. To examine possible use of simulation techniques in planning and administration of cities and urban regions, with particular reference to urban renewal and to the centralized information system presently being established in the Pittsburgh Department of City Planning. (RKG)

113. ECONOMIC STUDY OF THE PITTSBURGH REGION

Main Investigators: Edgar M. Hoover, Benjamin Chinitz and Ira S. Lowry.

Status of Research and Publications: The findings of the study will be reported in a series of volumes to be published in 1963 by the University of Pittsburgh Press. The first of these volumes includes the analysis of the regional economy as a whole and its historical evolution. The second volume analyzes the economy of the Region in terms of its component geographical areas. The third volume assesses future trends and potentialities for economic change. A fourth volume will be a concise summary of the over-all findings of the Study. Additional detailed and technical material may be issued subsequently in monograph form.

Agency: Pittsburgh Regional Planning Association, under sponsorship of Ford Foundation and the Regional Industrial Development Corporation of Southwestern Pennsylvania, with some Commonwealth of Pennsylvania funds.

Previous Digest reports: 7:2-51, 8:2-88.

Research Problem. (1) To analyze the economy of the Pittsburgh Region and of areas within it; to identify the principal economic factors in the Region's development; to provide a basis for anticipation of economic change in the Region and for sound private and public planning. (2) To lay the groundwork for a continuing process and organization which regularly thereafter will take the pulse of the regional economy, and which may serve as a pioneer model for similar undertakings in other metropolitan regions. (3) To advance the study of regional economics. (EMH)

114. THE AMERICAN METALS COMPLEX

Main Investigators: Edgar M. Hoover, Alan E. Fechter, and others.

Status of Research and Publication: Research beginning in fall of 1962, to continue into spring of 1964. No specific publication plans as yet.

Agency: University of Pittsburgh, Center for Regional Economic Studies under sponsorship of Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. This is an analysis of the major metal-producing and metal-working industries of the United States viewed as an industrial complex in relation to that area in the northeastern United States whose past and potential structure and development are most closely related to that complex. (EMH)

115. URBAN RENEWAL READER (working title)

Main Investigators: George S. Duggar and Warner Shippee.

Status of Research and Publication: In process.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs.

Previous Digest report: None.

Previous Relevant Research. Besides Mr. Shippee's previous work at ACTION Housing, and elsewhere, this project continues Mr. Duggar's studies in urban renewal including The Relation of Local Government Structure to Urban Renewal, reprinted by University of California Bureau of Public Administration from Law and Contemporary Problems (Winter, 1961); Federalism and Self-Government in the United States: Urban Renewal as an Example, reprinted from Jahrbuch des Offenflichen Rechts vol. 10, 1961; and The New Renewal, University of California Bureau of Public Administration, 1962. (GSD)

116. SOCIAL AND PSYCHOLOGICAL FACTORS IN URBAN CONSERVATION

Main Investigators: Herbert Maccoby, Bernard Mausner, and Maurice Shapiro.

Status of Research and Publication: In process.

Agency: University of Pittsburgh, Graduate School of Public Health with the cooperation of the Graduate School of Public and International Affairs under sponsorship of National Institutes of Health.

Previous Digest report: None.

Research Problem. A study of social and psychological factors which affect the degree to which individuals participate actively in the maintenance of good housing. (HM)

117. THE COUNCIL-MANAGER FORM OF GOVERNMENT IN PENNSYLVANIA: A CITIZEN'S HANDBOOK

Main Investigator: Joseph A. James.

Status of Research and Publication: Published in October, 1962.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Institute of Local Government.

Previous Digest report: None.

Research Problem. This study was prompted by the increasing popularity of, and interest in, the council-manager form of government. The publication develops the history and growth of the plan, particularly in Pennsylvania, and analyzes the character of council-manager communities and their reasons for choosing to operate under the plan. Although the strength of the council-manager plan as a form of government appears to be quite well established, it was a function of this research to explore both its pros and cons. It was also a function of this publication to provide a "model" ordinance to serve as a guide to those communities developing their initial council-manager ordinances and to aid those already operating under the plan. The "model" sets forth provisions for appointment and removal of the manager, qualifications, bond requirements, compensation, managerial powers and duties, and procedural limitations on council. The publication provides such additional information on Pennsylvania managers as tenure, other positions held by managers, salary range, and such personal data as manager education and previous experience. A reading list on the council-manager form of government is also included.

Method of Study. In preparing the Handbook, the Institute relied upon consultation with municipal officials and other individuals interested in local government. The "model" ordinance is based upon a 1952 publication of the Institute. The preparation of that "model" was based upon an analysis of then existing Pennsylvania council-manager ordinances, interviews with municipal managers, and other public officials. (JAJ)

118. RESOURCES IN AMERICA'S FUTURE: PATTERNS OF REQUIREMENTS AND AVAILABILITIES, 1960-2000

Main Investigators: Leonard L. Fischman and Hans H. Landberg, under general supervision of Joseph L. Fisher.

Status of Research and Publication: Research completed. Publication expected April, 1963.

Agency: Resources for the Future, Inc.

Previous Digest reports: 8:1-61; 9:1-63. (HHL)

119. RATIONALIZING PUBLIC INVESTMENT DECISION-MAKING IN URBAN COMMUNITIES

Main Investigator: Jerome W. Milliman.

Status of Research and Publications: In process.

Agency: Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. A great deal of urban public policy requires for effectuation the investment of public funds in long-lived capital facilities. Since these funds constitute a scarce resource and since much in the way of metropolitan development at one end of the scale and satisfaction of urgent needs at the other depend upon efficient conduct of such public policies, the development of a framework to rationalize public investment decisions can make an important contribution to the quality of urban policy making. Thus the objective of this project is to develop a broad framework for public investment decision making which can exploit the best features of such promising concepts as systems analysis, cost-benefit techniques, the budget as a polity document, and social overhead investment as a condition of metropolitan growth and development. (JWM)

120. THE SLUM YOUTH CULTURE

Main Investigator: Bernard Goldstein.

Status of Research and Publications: Preliminary data collection--school data on a sample of those attending school in the study area--has been completed. Main research effort is now being designed, interview schedule being prepared.

Agency: Rutgers University, Urban Studies Center.

Previous Digest report: None.

Research Problem. The research is geared to a program of demonstration projects now being planned; designed to increase the educational, economic and social opportunities of the school age population of an area of a large city generally accepted as having all the classic characteristics of a slum.

The research has two aims: (1) to establish benchmarks against which to measure the impact of the demonstration projects that will be established in subsequent years; (2) to adequately describe and explain the quality of life of the school age population in this area so as to make a scientific contribution and to provide a basis for evaluating the relative need and utility of alternative proposals for demonstration projects.

In addition, the research group is responsible for seeing that the demonstration projects carry with them a research design that will permit an evaluation of the effectiveness of the project and an estimate of its cost.

Method of Study. School data have been collected for some 1800 children in grades 3 through 12. An index has been constructed of "over" achievement, "under" achievement, and "straight-line" achievement. A sample (its proportions yet to be determined) from this broader sample will be interviewed. The interviews will be designed to furnish information on the daily round of activities engaged in by the respondents, their self-image, and the aspirations and expectations concerning education, work, family life and general life chances. (KMcE)

121. RESIDENTIAL MOBILITY IN THE AMERICAN MIDDLE CLASSES

Main Investigator: Robert Gutman.

Status of Research and Publications: Although the main body of the research has been completed and published in the paper "Population Mobility in the American Middle-Classes: Some Social and Psychological Considerations" and will be reprinted in The Environment of the Metropolis, Leonard J. Duhl, Editor, New York, Basic Books, 1963, the research will be continued over an indefinite period.

Agency: Rutgers University, Urban Studies Center.

Previous Digest report: None.

Research Problem. This project is concerned with four aspects of population mobility: an investigation of the reasons people choose to move to suburban settlements; the response of suburban settlements to newcomers; the manner in which newcomers manage to assimilate themselves into the life of these settlements; and the impact of moving on personal adjustment and family behavior.

Method of Study. As the means of investigating these matters, approximately 150 interviews were conducted among newcomers to a variety of settlements located on the fringes of the New York metropolitan region. Insofar as possible, an effort was made to talk with the newcomers within one month of their arrival in the community. Subsequent interviews were conducted over a period of a year, and are still underway.

Major Findings. Refer to publication listed above. (KMcE)

122. SERVICE AREAS AND FUNCTIONS OF SMALL CENTERS IN THE PENNSYLVANIA-NEW JERSEY-DELAWARE METROPOLITAN REGION

Main Investigator: John E. Brush.

Status of Research and Publications: Publication expected June, 1963, in form of a 150-page brochure with maps and graphs.

Agency: Rutgers University, Urban Studies Center.

Previous Digest report: None.

Research Problem. The problem is the analysis of new relationships between urban centers and the residents of the metropolitan hinterland. The old simple pattern of rural service centers is being displaced by growth of non-agricultural employment and increase of population.

Previous Relevant Research. John E. Brush, "The Hierarchy of Central Places in Southwestern Wisconsin," Geogr. Rev., Vol. 43, 1953, p. 380-402; also John Brush and Howard E. Bracey, "Rural Service Centers in Southwestern Wisconsin and Southern England, "geogr. Rev. Vol. 45, 1955, pp. 559-569.

Hypotheses. (1) Small urban centers in the periphery of the metropolitan region have ceased to exhibit well-defined service areas. (2) Trips of the residents for shopping are more or less random within broad limits of time and distance. (3) A diffused geographic pattern of settlement is developing with many ties between the residents and their places of work and shopping.

Method of Study. Field inventory of business and service establishments; mapping of hinterlands by road turnings and traffic flow; analysis of travel data for shopping and employment obtained by the Penn-Jersey Transportation Study of Philadelphia. (KMcE)

123. DEMOGRAPHIC AND ECOLOGICAL CHARACTERISTICS OF THE AGING

Main Investigator: Don F. Heisel.

Status of Research: Initial stages; availability of relevant data is being evaluated.

Agency: Rutgers University, Urban Studies Center and Bureau of Government Research, under sponsorship of the New Jersey Division of Aging.

Previous Digest report: None.

Research Problem. (1) Basic or long run, to develop a stable typology of local areas for the urbanized portion of New Jersey. (2) Immediate or applied, examination - with reference to the areas defined - of the characteristics of the aged as a group. Characteristics will include relative size of the aged group in the total population, sex distribution, family status, mobility patterns, housing, social and ethnic classification, etc. (3) Finally, inquiry will be made into the social and legal conditions affecting the aged. These will include any special tax provisions relating to the aged, social welfare programs (especially at the local level), and so on.

Method of Study. In phase (1), the definition of social areas, the research will proceed along the lines already explored by Shevky and Williams, Shevky and Bell, Tryon, and others. (Shevky and Williams, The Social Areas of Los Angeles, Berkeley, 1949. Shevky and Bell, Social Area Analysis, Stanford, 1955. Tryon, Identification of Social Areas by Cluster Analysis, Berkeley, 1955.) The description and analysis of the characteristics of the aged, phase (2), will employ the standard concepts and procedures of demographic inquiry. Special techniques will be developed if special problems in the data arise. For both of these phases the primary source of data will be the reports of the decennial censuses. Densus tract data will be used wherever possible. In phase (3), a particularly important source of data will be the application forms for the $800 senior-citizen exemption from the real property tax. (KMcE)

124. AN EXPLORATION OF THE ADAPTABILITY OF LOCAL GOVERNMENT IN THE PENJERDEL REGION, AS MEASURED BY DEMONSTRATED CAPACITY TO COPE WITH NEW OR EXPANDED PROBLEMS, 1950-1962

Main Investigator: Harris I. Effross.

Status of Research: In process.

Agency: Pennsylvania Economy League (Eastern Division), the Bureau of Government Research of Rutgers University, and the University of Delaware are conducting the research, each in its particular area of the region, under sponsorship of Penjerdel, Inc. of Philadelphia and the Smith, Kline and French Foundation.

Previous Digest report: None.

Research Problem. To determine the extent to which solutions to local governmental problems have been provided by (a) local government's own resources, (b) action of other governmental levels, and (c) interjurisdictional agreements; to determine the suitability of the examined governmental units for the performance of particular functions; to offer recommendations for more effective solutions through (a) existing structural arrangements, (b) greater use of intergovernmental arrangements, and (c) the re-allocation of functions among the various units

Previous Relevant Research. The Penjerdel Local Government Survey, four recently completed monographs.

Method of Study. A determination will be made, wherever possible, of the scope of services provided as of December 31, 1950, based on official records and interviews with appropriate officials. Unsolved problems, recognized as such in 1950, will be pinpointed by interviews with public officials and community leaders and by examination of government records, ordinance books, and local newspapers. Changing demographic and economic conditions will be described. Problems that developed or were aggravated since 1950 will be outlined. Actions by individual communities and cooperative action through intergovernmental arrangements will be summarized.

The scope of services in 1962 will be compared with the scope in 1950. Unsolved problems, recognized as such, will be identified. (KMcE)

125. SERVICE AREAS FOR PUBLIC HEALTH

Main Investigator: Philip H. Burch, Jr.

Status of Research: In process.

Agency: Rutgers University, Bureau of Government Research in cooperation with the Urban Studies Center, under sponsorship of New Jersey Department of Health and the Milbank Memorial Fund.

Previous Digest report: None.

Research Problem. To determine the proper minimum or desirable size of governmental units necessary for the efficient provision of public health services, with particular reference to New Jersey.

Previous Relevant Research. Local Health Units for the Nation, New York, The Commonwealth Fund, 1945; Public Health Areas and Hospital Facilities, Washington, U. S. Public Health Service, United States Government Printing Office, 1951.

Method of Study. An attempt is being made to work backwards, using time and distance as two important considerations, from "ideal" service standards, to arrive at the proper size unit. If sufficient data exist, a comparison will be made of the relative efficiencies of large versus small scale public health operations. The ratios of the administrative and fixed costs to total public health expenditures for various sizes of governmental units will be established. A determination will be made of the actual existing service areas for hospitals and visiting nurse associations in New Jersey. An examination will be made of local public health districts outside of New Jersey to determine the average size of such districts in terms of population and area. (KMcE)

126. RETAIL TRADE IN SOUTH DAKOTA

Main Investigators: V. E. Montgomery and M. L. White.

Status of Research and Publications: Research completed. Copy of report on file in office of Upper Midwest Economic Study.

Agency: State University of South Dakota, Business Research Bureau under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 8:2-58.

Research Problem. One particular aspect of the Upper Midwest Economic Study is the investigation of shifts in retail trade activities. Since many of the conclusions obtained from a study of retail trade in South Dakota can be applied in generalized form to the rest of the Upper Midwest Region, a detailed study of retail trade in South Dakota has been made for the period 1948-1961.

The three main aspects of retail trade included are: (1) the influence of city size; (2) the influence of location; and (3) changes according to type of business.

Method of Study. Principal attention in this study was directed to the 129 incorporated towns which have a population of 500 or more, and do 90 per cent of the retail business in the state. Data were drawn chiefly from the files of the South Dakota Department of Revenue covering sales tax receipts (available only for the period 1956-1961) and the Censuses of Business for 1948, 1954 and 1958. Retail businesses were classified in four general types: (1) farm production, supplies; (2) durable goods; (3) non-durable goods; and (4) eating and drinking establishments.

Major Findings. The general opinion that small towns are losing business relative to the larger cities due to the increased mobility of the people is verified here. The number of retail establishments in the communities with populations less than ten thousand declined from 1948 to 1958. Towns with less than 2,500 people lost ten percent of their retail establishments during this period and cities in the 2,500 to 10,000 category had a three percent drop.

There was an increase between 1948 and 1958 in the total volume of retail sales in current dollars in both the cities with more than 2,500 population and the rest of the communities but the rate of increase in the smaller towns was only 57 percent as great as in the major cities. Based on constant dollars (1947-49=100) there was a decrease of three percent in dollar volume in the smaller communities and a seven percent increase in the major cities. Since 1959 the decline in sales in the very smallest towns (less than 500 population) appears to have leveled off at a rate of about 12 percent of total sales, but sales in cities of 10,000 and over have continued to show a gradual increase. By 1961 these cities accounted for nearly half of total retail sales in South Dakota.

This study demonstrates that distance from a large city has a significant influence on retail sales. Even though sales in small communities have been declining, those in the areas farthest from any major cities have maintained a substantially greater share of area sales than have similar sized communities closer to major shopping centers.

Unfortunately the limited information that is available for retail sales by type of business does not provide sufficient information to warrant the drawing of any definite conclusions by type. The data do indicate that of four types of retail business investigated there has been a shifting from the smaller to larger communities in the sales at eating and drinking establishments and farm production stores. Similar shifting does not appear to have taken place in the sales at durable and non-durable goods stores. (VEM)

127. FINANCING LOWER-MIDDLE INCOME HOUSING

Main Investigators: Jack E. Gelfand and Edwin Eames.

Status of Research and Publications: Preliminary drafts of final reports are being reviewed by experts in the field of housing finance. Publication expected early in 1963.

Agency: Temple University, Bureau of Economic and Business Research, under sponsorship of Pennsylvania Department of Commerce, Bureau of Community Development and the Housing and Home Finance Agency.

Previous Digest reports: 8:1-62; 8-2-91; 9:1-64. (JEG)

128. NATIONAL STUDY ON PUBLIC HOUSING URBAN RENEWAL

Main Investigator: James A. Murray.

Status of Research and Publication: Study initiated June 1962. Estimated completion date, January 1964.

Agency: University of Toronto, School of Architecture, for the Ontario Association of Housing Authorities, under sponsorship of the Government of Canada and the Province of Ontario.

Previous Digest report: None.

Research Problem. The area of investigation will embrace social, economic, administrative and architectural aspects of urban renewal, redevelopment and public housing in Canada.

Specifically, the study will examine the following: (1) the place of low-rent, moderate rent and elderly person housing in national and provincial housing programs, as well as priorities for the expenditure of public monies for such programs; (2) the place of public housing in municipal capital programs; (3) the place of public housing in urban redevelopment programs; the role of conservation, rehabilitation and acquisition of existing properties for public housing purposes in implementing such programs; (4) the role of private enterprise in urban renewal and public housing programs; (5) the place of land assembly schemes, under Section 36 of the National Housing Act, in producing low-rent and moderate-rent housing; (6) the machinery for producing low-rent, moderate-rent and elderly persons housing; the local organization required; and the respective roles of Federal, Provincial and Municipal Governments; (7) the role of social agencies in public housing and the need to examine the basic question of how much the limited financial resources of the public housing program should be used for social services and how the existing social resources in the municipality should be used; (8) the need to establish a program of authorizing Federal and Provincial funds for a total community renewal program rather than the project-by-project approach; (9) the need to study tax incentives in improving properties and tax changes which might be directed towards penalizing property neglect.

Previous Relevant Research. Humphrey Carver, Houses for Canadians, University of Toronto Press, 1948; Y. Dube, J. E. Howes and D. L. McQueen, Housing and Social Capital (Royal Commission on Canada's Economic Prospects) Queen's Printer 1957; A Better Place to Live, Ontario Department of Municipal Affairs, Community Planning Branch, 1962.

Method of Study. The study team will consist of a professional representative in each of four areas of social scientific discipline; economics, sociology, legislation and government, and architecture. In addition, an extensive consultant assignment program will be arranged and a research associate maintained. This segment of the study organization is designed to produce the research, evaluation and synthesis leading to policy recommendations on housing and urban renewal.

The tools of research will consist of statistical analysis, housing and renewal literature and individually conducted field appraisals of both foreign and Canadian experience. Emphasis will be placed on material assembly, and research techniques and applied pilot research models will be developed. The four symposia will undertake an evaluation of all the study components in the latter stages of the study. Modifications based on the collective thinking of the participating special interest groups will be introduced before the final report is drafted and approved by the Advisory Committee. (BG)

129. TECHNOLOGY AND URBAN TRANSPORTATION

Main Investigators: John R. Meyer, John F. Kain, Martin Wohl.

Status of Research and Publications: Report completed and submitted to agency.

Agency: United States Government, Executive Office of the President, Panel on Civilian Technology. (Report was prepared in response to a request from the panel, but the views expressed are those of the authors and do not carry the endorsement of the panel.)

Previous Digest report: None.

Research Problem. This analysis and evaluation of technology and urban transportation was conducted for the purpose of identifying useful technological research areas. By way of accomplishing this objective, some limited system design and analysis was performed and alternative transport nodes were compared. Though incomplete, the analysis and costing is considered sufficient for the purpose stated.

Major Findings. The report emphasizes the necessity of comprehensive system-wide analysis in order to project the value and viability of particular transport modes or combinations thereof in specific metropolitan areas. This report does not provide such analysis and no inference should, therefore, be drawn from it regarding the feasibility of specific transport systems.

However, the findings do suggest some reasonable alternative transport systems which should undergo deeper consideration. In this context, planners and engineers are urged to consider public and private transport systems as components of an over-all system, to conduct what in fact are urban transportation system analyses, and to consider and make more efficient use of the existing and extensive urban transportation plant. (MW)

130. DEVELOPMENT OF A COMPREHENSIVE AND CO-ORDINATED RESOURCE PLAN FOR THE SOUTHEAST RIVER BASINS AREA

Main Investigators: U. S. Study Commission, Southeast River Basin, through its staff and through more than 200 contracts with Federal, State and local agencies and universities.

Status: Main report, eight separate basin appendixes and five technical appendixes are about 94 percent complete. Reports will be ready for state and Federal review in January, 1963.

Previous Digest reports: 7:2-57; 8:2-100.

Research Problem. Determine a basis for projecting resource needs to the year 2000 and then developing a plan, with costs and benefits, to meet the needs. The following functions are involved: (1) flood control and prevention; (2) domestic and municipal water supplies; (3) the improvement and safeguarding of navigation; (4) the reclamation and irrigation of land, including drainage; (5) possibilities of hydroelectric power and industrial development and utilization; (6) soil conservation and utilization; (7) forest conservation and utilization; (8) preservation, protection, and enhancement of fish and wildlife resources; (9) the development of recreation; (10) salinity and sediment control; (11) pollution abatement and the protection of public health; and (12) such other beneficial and useful purposes not herein enumerated. (GET)

131. DEVELOPMENT PLAN FOR THE NECHES, TRINITY, BRAZOS, COLORADO, GUADALUPE, SAN ANTONIO, NUECES, AND SAN JACINTO RIVER BASINS AND INTERVENING AREAS

Main Investigators: U. S. Study Commission - Texas.

Status of Research and Publications: Completed, transmitted to Congress August 1, 1962, and ordered printed as House Document #494.

Previous Digest report: 7:2, p. 55. (CDC)

132. COMPARATIVE ADVANTAGE OF U. S. REGIONS [a]

Main Investigator: R. J. Wonnacott

(a) For additional items comprising parts of the Upper Midwest Economic Study, see 81, 82, 83 and 126, in this issue. (Editor's note.)

Status of Research and Publications: Study completed in draft form. Eventual publication as study report by agency.

Agency: Upper Midwest Research and Development Council.

Previous Digest report: 8:2-59.

Research Problem. To assemble information on inter-area differences in industrial costs in the United States and analyze the potential effects of these differences on the location of industry in the Upper Midwest, and in other areas.

Method of Study. Four location influences have been singled out for detailed analysis: labour costs, proximity to markets, transportation co costs, and state and local taxes. Wages, market proximity and transportation costs were included because they are the most critical influences on location; taxes were analyzed because they are the location factor most amenable to policy control.

One of the difficulties in previous cost studies has been the problem of comparing for example, existing differences in labour costs with differences in transportation costs. In this study these cost comparisons have been reduced to a common measure. This has allowed the specification of those industries in which labour costs are most critical, those industries in which transportation costs are generally the deciding influence, and those industries in which several cost factors considered play an important role.

The comparisons involve a complete breakdown of the U. S. into 13 regions, along with a breakdown of manufacturing industries. The industrial classifications used are the 20 two-digit S.I.C. categories. The major theoretical problem encountered was to specify where likely markets might be in the event an industry locates in a specific area. Markets cannot be specified a priori; to a degree they depend upon where the good is produced. And this market pattern of course will determine the transport costs incurred from each location.

It was necessary, therefore, to develop a market potential model based on two strong preferences by the entrepreneur: the desire to locate as close as possible to the most attractive markets, and the desire to avoid the spatial competition of established producers of the same good. The model, therefore, combines some of the properties of a linear programming approach aimed at transport cost minimization, some of the properties of market or population gravity models, and some of the characteristics of the Chamberlin-Hotelling models of spatial interdependence. (RJW)

133. THE GEOGRAPHIC IMPACT OF THE FEDERAL BUDGET

Main Investigators: Richard Rosenberg, John Adams, Ronald J. Wonnacott.

Status of Research and Publications: Preliminary findings published by agency, October, 1962, as Technical Paper No. 3. (27 pp. offset.)

Agency: Upper Midwest Research and Development Council and University of Minnesota.

Previous Digest report: 8:2-63.

Major Findings. This study estimates the extent to which the federal cash budget redistributes income between areas in the United States. The area from which income is drawn (in the form of federal taxes exceeding expenditures) is the area bounding the Chicago-New York axis. This income is redistributed (in the form of federal expenditures exceeding taxes) to the South, Southwest, the mountain states, and the Pacific Coast.

By 1960 the federal government's fiscal operations had a neutral effect on the Upper Midwest as a whole in the sense that tax assessments from the area were almost as large as federal expenditures. However, within the Upper Midwest the federal government did considerably alter income flows; on balance, funds were withdrawn from Minnesota, while in Montana, North Dakota, and South Dakota federal expenditures exceeded withdrawals. This represents a substantial shift from earlier in the decade; in 1952 the Upper Midwest area received substantially less federal spending than it paid out in taxes. (On the other hand, in 1960, federal expenditures per head of population in the Upper Midwest were well below the national average.)

Not surprisingly, this study confirms the usual generalization that tax collections are more closely related than federal expenditures to the income and population of each area. The progressive nature of federal income redistribution is clearly shown; there is a definite tendency for income to be withdrawn from wealthy areas and spent in poor areas. (Nevertheless, relatively wealthy areas still tend to receive more federal expenditures per capita than do relatively poor areas.) There is also a tendency for industrial areas to be taxed more heavily than agricultural areas (though there is no tendency for federal expenditures to be more heavily concentrated in either).

The figures derived in this report do not show all of the impact of the federal government in redistributing income between states. For one thing, many federal programs have important bearing on the location of industries (e.g. tariffs) even though they do not involve specific federal expenditures. Furthermore, the indirect effects of federal spending in generating income vary from time to time and place to place and according to the type of expenditure in the highly complex way, and it has not been possible to estimate these indirect effects here. (RJW)

134. CHANGING URBAN LAND USES AS AFFECTED BY TAXATION

Main Investigator: Jerome P. Pickard.

Status of Research and Publications: Completed. Published by agency, October, 1962, as Research Monograph Number Six, 104 pp. $4.00.

Agency: Urban Land Institute.

Previous Digest report: None.

Major Findings: (Based on study conferences in Washington, Boston, Pittsburgh, and Newark): Taxation affects the quality and character of urban land uses, and investment in new development or renewal or urban real property. Many kinds of taxes affect land use, directly or indirectly, but the two principal forms of taxes most directly involved are (1) Federal taxation on income and investment returns and (2) local property taxation. There is a wide variety of opinion regarding both the relative importance of tax factors in urban development, and the desirability of coordinating and using the tax mechanism in the direction of urban planning goals. It is quite probable that there are real and long-term differences in these factors among different metropolitan areas. There is inadequate ground work for discussing intelligently, not to mention fully understanding, many critical tax-land use relationships. We urgently need more research to explore these relationships in order to provide a better foundation for decisions. (JPP)

135. PROPERTY TAXATION AND URBAN LAND USE IN NORTHEASTERN NEW JERSEY

Main Investigator: Morris Beck.

Status of Research and Publications: Completed. Publication anticipated in late November or early December by agency.

Agency: Urban Land Institute.

Previous Digest report: None.

Major Findings. In the nine counties of Northeastern New Jersey, local property tax rates show definite relationships with the intensity of urban development in the region. High tax rate communities are generally the most populous, and the most densely populated municipalities. Many of these are older communities located in the regional core area. These places rank low in the per capita market value of real property. Low tax rate communities exhibit opposite characteristics: small total population, low population density, and high value of taxable real property per resident.

Between 1951 and 1960, the total value of taxable real property in the region increased by 86 per cent, to $21.1 billion. Viewed regionally, the growth was uneven, with the oldest and highest density areas growing by only 31 percent whereas the fringe communities with the least density grew by 163 per cent. Effective tax rates and per capita taxes showed a similar relationship. Nevertheless, despite reduction in the differential, tax rates remain substantially higher in the core areas than in the inner and outer rings.

There is a clear tendency for an inverse relationship between effective tax rate and the amount of industrial and commercial real property per resident, but the presence of a high proposition of industrial and commercial property in the tax base does not necessarily guarantee a low property tax rate. The widespread impression that central cities enjoy fiscal advantages over smaller communities because of their wealth in commercial property is not supported by this study. Even in cities with sizeable commercial and industrial wealth, residential property resources per capita are generally so poor that they more than cancel out any advantage, yielding on balance among the lowest property values per resident in the region. (JPP)

136. EMPLOYMENT AND POPULATION ANALYSIS AND PROJECTIONS, SALT LAKE METROPOLITAN AREA, UTAH AND THE UNITED STATES

Main Investigators: Lawrence Nabers and Jewell J. Rasmussen.

Status of Research and Publications: Completed. Published by agency, September, 1962. 133 pp. offset.

Agency: University of Utah, Bureau of Economic and Business Research, under sponsorship of Utah State Highway Department and U. S. Bureau of Public Roads.

Previous Digest report: 8:1-69. (KLL)

137. LEVELS OF GOVERNMENT SERVICES

Main Investigator: Werner Z. Hirsch.

Status of Research and Publication: Results of the study were presented in a paper by Werner Z. Hirsch at the Conference on Public Expenditure Decisions in the Urban Community, sponsored by the Committee on Urban Economics of Resources For The Future, Inc. May, 1962, Washington, D. C. Publication in late 1962.

Agency: Washington University, Institute for Urban and Regional Studies.

Previous Digest report: None.

Research Problem. Government service levels were examined in the light of what government produces, how much, how efficiently and of what quality. The study points out some extremely difficult conceptual and empirical issues arising from the attempt to comprehend and measure service level and its value, efficiency, service quantity and quality. The difference between consumers' (constituents') and producers' (government's) views of service level is developed. The constituents' view centers mainly around the wants-satisfying power of the end product, and the government's view emphasizes the problems encountered in performing the service. Measurements of service levels viewed by constituents and government in monetary and non-monetary terms are explored. Temporal service level change measurements are examined, together with the issue, how certain institutional arrangements might affect service levels and efficiency. These concepts are related to public education, fire protection, refuse collection and water system. (WZH)

138. THE EFFECTS OF TECHNOLOGICAL CHANGE ON CULTURAL CONTINUITY AS EVIDENCED BY THE MORPHOLOGY OF CERTAIN JAPANESE CITIES (1870-1920)

Main Investigators: Thomas J. Norton, Myer R. Wolfe.

Status of Research and Publications: A three year project the initial phase of which was undertaken during the summer of 1962. A monograph reporting progress on the first phase will be issued in the spring of 1963.

Agency: University of Washington, Center for Asian Arts, under sponsorship of the Ford Foundation.

Previous Digest report: None.

Research Problem. This investigation is addressed primarily to the problem of assessing the effects of technological change upon the morphology of cities in Japan.

Previous Relevant Research: Little has been done which has a direct relevance to the problem being investigated. Urban geographers, cultural anthropologists and urban planners have dealt with some aspects of the problem but none have focused on the possibility of utilizing urban morphology as an indicator of cultural continuity.

Hypothesis. A study of the urban morphology of contemporary cultures can provide significant insight into the dynamics of cultural change and continuity and thus contribute positively to the efforts being made to comprehend the increasingly pervasive phenomena of urbanism. The potential value of such a study in alieviating the dislocations caused by technologically induced change in rapidly developing areas will be explored.

Method of Study. A case study approach will be employed. The structure of the urban areas to be studied will be established as it was prior to the introduction of post industrial revolution technology. These areas will then be studied at various points in time after the input of specific components of technology. Japan presents a particularly meaningful area for such a study due to the purposeful and rapid introduction of modern technology which occurred in that country during the late 19th and early 20th centuries. (TJN)

139. CRITERIA FOR THE ESTABLISHMENT OF ADDITIONAL SCENIC AREAS ALONG HIGHWAYS IN THE STATE OF WASHINGTON

Main Investigators: Myer R. Wolfe, Sidney Cohn, Thomas J. Norton.

Status of Research and Publications: Study is Part II of a larger study entitled Outdoor Advertising Control. Project is completed and the report is in the process of being printed.

Agency: Washington State Legislature, Highway Interim Committee.

Previous Digest report: None.

Research Problem. To develop criteria for the designation of scenic areas within which certain outdoor advertising would be prohibited.

Previous Relevant Research. Very little has been done relating to the specific problem of interest here. The State of California published a report in March, 1962 entitled, A Preliminary Plan for Scenic Highways in California which dealt with some aspects of the problem.

Hypothesis. That a set of meaningful criteria could be developed for the guidance of decisions relating to what is and what is not scenic. Since public policy is involved it is necessary that the decision making frame of reference be closely correlated with legal and administrative frames of reference.

Method of Study: Essentially three steps were involved: (1) accumulation of all relevant data available through research including circulation of a questionnaire to all states; (2) development of several alternate sets of criteria; (3) testing in the field of the alternate sets of criteria; (4) relating evaluative systems to administrative systems.

Major Findings. Systems of classification of varying complexity were evolved from the study. Thus a gradation from relatively gross evaluation to rather sophisticated evaluation was possible. The optimal arrangement for evaluating scenic areas called for the utilization of a complex set of criteria by a person or persons possessing skills in the relm of aesthetic judgment. It was recommended that, while expert judgment be employed, the role of the expert should be an advisory one to the policy making body. (TJN)

140. URBAN ECONOMICS, A GUIDE TO RESEARCH ON WASTE, POVERTY AND STAGNATION IN CITIES

Main Investigator: Wilbur R. Thompson.

Status of Research and Publications: First draft completed.

Agency: Wayne University, Department of Economics, under sponsorship of Committee on Urban Economics, Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The monograph is largely a conceptual and deductive piece ranging widely over as much of the field of economics as the author is able to grasp. The work is divided into two parts: urban-regional economic analysis and the economics of selected urban problems. In the first part, the economist's traditional concepts, such as export multipliers, elasticity of demand, monopoly and oligopoly, and external and internal economies of scale, are applied to the small-area (urban) economy in an operational context. Physical productivity, monopoly power and city size are considered as determinants of local money and real income. Interpersonal and inter-governmental income distribution in politically-fragmented metropolitan areas are integrated in an over-arching framework. Seasonal instability is seen as an urban efficiency problem; the concept of local cycles as an industry-mix phenomena is critically reviewed; a concept of growth instability is added. Urban-regional economic development is viewed both from the demand (for local exports) side and the supply (of local resources) side, with emphasis on labor and entrepreneurship. Finally, the complementarity or substitutability of goals such as affluence, equity, stability and growth is considered in the context of a matrix of their interactions.

In the second half, four leading urban economic problems are considered and research designs suggested. Unemployment and poverty are seen as local problems which must be approached from the supply side -- personal development and adaptation -- rather than as Federal problems of inadequate aggregate demand; welfare policy and manpower planning are seen as critical challenges to urban management. Local public finance in politically fragmented metropolitan areas is framed as the balancing of scale economies and consumer choice in an age of affluence and "product differentiation." The housing section considers core area strategy in urban renewal to attain maxiumu financial leverage; racial-residential patterns in the "grey area" and the economics of "urban sprawl" at the fringe. Finally, the traffic problem is analyzed as a problem in relative prices and resource allocation, with some attention given to technological change and to the need for an experimental approach. (WRT)

141. ELECTION WITH AN ISSUE: VOTING BEHAVIOR OF A METROPOLITAN COMMUNITY IN A SCHOOL FUND ELECTION

Main Investigator: Roberta S. Sigel.

Status of Research and Publications: Completed and reported.

Agency: Wayne State University, Department of Political Science, with assistance from Detroit Board of Education.

Previous Digest report: None.

Research Problem. In a large, urban community who are the friends of the public schools? By friends we mean people willing to tax themselves on behalf of the schools. How stable is their "friendship"? By what media (mass and others) can they be reached?

Hypotheses. School elections are perceived differently by the voter than regular political elections, especially partisan ones. Self-interest will guide his choice but self-interest will often work in opposite directions (children attending public school may make a voter inclined to vote for school taxes while his high property taxes push him to vote against them). The voter is then cross pressured.

In cases of such cross-pressure, the mass media will play a decisive role in affecting his vote. They will be more effective even than personal influence, grass roots organizations, etc. This will be so because education is not considered a political issue but one for the experts. On issues of expertness the mass media, especially the press, is trusted.

Method of Study. Personal interviews with a probability sample of 919 Detroit registered voters one month after the 1959 school fund election.

Major Findings. The hypotheses were borne out with the following additional findings: Parents of children in public school are friends of the school--but very unstable ones. Often they fail to vote. They fail to do so most when the mass media do not strongly support the schools.

The only exception to the above are well-educated white people of the middle class, who are stable supporters of school fund requests. They however are beginning to become a very small minority inside the city limits. Of the remaining people, mostly working class, many send their children to parochial schools and often are opposed to new school taxes. Negro working class voters, on the other hand, are in favor of school spending but often do not vote. Yet this is the group on which, more than any other, future support for the public school must rest in large communities like Detroit. (RSS)

142. THE IMAGE OF THE PRESIDENCY: AN INVESTIGATION INTO THE POLITICAL VIEWS OF URBAN DWELLERS

Main Investigator: Roberts S. Sigel.

Status of Research and Publications: Partially completed; parts have appeared as journal articles; a monograph is visualized for the completed product.

Agency: Wayne State University, Monteith College.

Previous Digest report: None.

Research Problem. Just how do Detroiters view the Presidency (in distinction from individual presidents)? Are they apprehensive of his great powers, or do they want an even stronger leader--and an expert--who can make the crucial decisions for them?

Hypotheses. Americans have ambivalent attitudes towards presidential power. They are afraid lest it be abused but they also want a strong leader who can make his will prevail over Congress and even over the people. The desire for strong leadership is based not merely on apathy or psychological needs but more significantly on a recognition that the crucial problems of the day are too complicated for the layman to solve. Because of the voter's inability or unwillingness to decide major issues for himself, the party and group reference have become the great mediating agents in decision making.

Method of Study. A public opinion survey of 1350 Detroit voters two weeks prior to the 1960 presidential election.

Major Findings. Many of the major ones are still in process of analysis. So far the hypotheses seem proven and little difference is found among different population groups. Negroes and well-educated people, however, are most favorably inclined towards strong leadership.

Subsidiary findings revealed the great liability which Kennedy's religion constituted among White Protestants, and the extreme loyalty of Negroes to the Democratic Party. No Catholic-Republican swing to Kennedy was discovered. Another finding revealed that the candidate's image is largely determined by the image of the party he represents. There is agreement on that among Republicans and Democrats, i.e. Republicans and Democrats agree on the nature of the Kennedy image and they agree similarly on the Nixon image. In each case the image bore great resemblance to the popularly held image of the two respective parties. (RSS)

143. THE FINANCIAL EVOLUTION OF THE MILWAUKEE METROPOLITAN AREA

Main Investigator: Donald J. Curran.

Status of Research and Publication: Doctoral dissertation, in process. Completion expected in February, 1963.

Agency: University of Wisconsin, Department of Economics, under sponsorship of Resources For The Future, Inc.

Previous Digest report: None.

Research Problem. This study is concerned with the public finances of the city of Milwaukee and its nineteen suburbs that lie within Milwaukee County. We want to know what trends are observable over time in the revenue and expenditure patterns of the localities in this area. We further hope to sift out the universal elements in their financial development which are common to all of them from the particular, individual elements that are peculiar to this or that municipality. And from an examination of the past, we hope to offer worthwhile forecasts of two kinds: (1) the future of the localities being studied, and (2) the probably stages of evolution of new fringe areas as they appear.

Hypothesis. There is a tendency for the municipalities of a (fixed) metropolitan area to draw closer to one another over time in their revenue and expenditure patterns.

Method of Study. The unique feature of this investigation is its historical approach, for it examines the finances of this metropolitan area over a forty-year period (1920 - 1960). These four decades are divided up into twelve time periods: every five years from 1930 to 1950, and then every two years from 1950 to 1960. The high quality of records in Wisconsin plus the reliability of its equalization machinery in property assessment makes this historical approach both possible and productive. (DJC)

144. RESOURCES, PEOPLE, AND ECONOMY OF EAST-CENTRAL WYOMING

Main Investigators: Floyd K. Harmston and Richard E. Lund.

Status of Research and Publications: First draft copy of study nearing completion. Final draft should be in the hands of the printer before the first of the year.

Agency: University of Wyoming, Division of Business and Economic Research, and Wyoming Natural Resource Board.

Previous Digest report: 9:1-70.

Research Problem. This section of Wyoming is dominated by agriculture. The problem is to determine the impact of agriculture, problems created by changes in agricultural techniques, and to determine what the future holds as nearly as possible.

Previous Relevant Research. Nothing of this sort has been done for this area. However, we have made similar analyses of twelve other areas of Wyoming.

Hypotheses. The major hypothesis being tested is: An economy heavily dependent upon agriculture must, because of automation trends in the industry, find other sources of basic income to keep itself alive.

Method of Study. Aside from usual studies of trends, the methodology being used is analysis by means of multipliers developed with input-output tables. (FKH)

77. BELTLINE COMMERCIAL - INDUSTRIAL DEVELOPMENT

Main Investigators: James Schwinden and others.

Status of Research & Publications: Study completed. No present publication plans.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-40.

Research Problem. A follow-up report on a previously completed study (see Digest report cited above,) this paper provides a view of the changing pattern of land utilization over a 10 year period, develops estimates of the trend in land prices, and examines the results of the land acquisitions for the interstate highway as they affect land prices.

Major Findings. (1) The supply of uncommitted lands (idle or farm) has decreased markedly because of commercial industrial development and highway land acquisitions. (2) It appears that the shrinkage of supply has exerted a strong upward pressure on land prices, a pressure likely to continue until the supply of uncommitted land is exhausted. (3) Highway construction, in addition to shrinking the supply of uncommitted lands, also increases the demand for lands for commercial and industrial development in the study area. Thus the highway affects land prices on both the supply and demand sides. (JS)

BRIEF MENTION

TRANSPORTATION

Niagara Frontier Transportation Study[a]

A research program aimed at alleviating transportation problems in the Buffalo-Niagara Falls area has been launched. Cost of the program, the Niagara Frontier Transportation Study, is estimated to total $1,250,000 which the State of New York and Federal governments will share on a 32-68 per cent basis, respectively. The study will take into consideration all means of surface movement of people and goods in the area. Survey methods will be tested and standardized so that the program staff can carry out similar studies for other areas of the state. It is expected that a final, tested plan for the Niagara Frontier can be completed within two years. The program is under the direction of Roger L. Creighton who formerly was planning consultant for the Chicago Area Transportation Study.

RIVER BASIN DEVELOPMENT

Economic Base Survey of the Potomac River Service Area, 1957-2010[b]

The Office of Business Economics, U. S. Department of Commerce, has released an economic base study of the Potomac River Service Area. The report furnishes a guide for appraising the economic and population growth of the Potomac Valley to 2010.

For purposes of presentation, the 36 counties and 7 cities that make up the Potomac River Area have been grouped into 5 regions, centering on the Washington metropolitan area. The past growth of each of the areas is analyzed in terms of income, employment, population, and households. Evaluation of future growth in the regions is made in terms of these four basic measures.

Overall economic growth of the Potomac Valley, as well as that of the Nation as a whole, is traced by means of personal income, the most comprehensive measure of economic activity available on a geographic basis. Projections of total and average income as well as of population, employment, and households are given for 1965, 1985, and 2010. In addition, the report includes a detailed description of sources and methods of estimation which can serve as a pattern and guide to those who are interested in the measurement and analysis of local area economic conditions.

(a) From ASPO Newsletter, April, 1962.

(b) From Statistical Reporter, April, 1962.

Copies of "Economic Base Survey of the Potomac River Service Area, 1957-2010" may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 55 cents per copy.

HOUSING AND URBAN RENEWAL

Ford Foundation Grants for Study of Slums (c)

The Ford Foundation has announced several grants to selected cities in an attempt to help local government agencies and private organizations coordinate their activities in solving slum problems.

One grant is for $2 million for a study of the social problems of slums in Oakland, California. The city, the state, Alameda County and two private organizations will participate. The study will focus on a neighborhood with a growing proportion of Negroes and persons of Mexican descent, and will include experimental projects in health, education, recreation, probation, youth employment, community organization, and leadership development.

The Foundation has also given the city of New Haven, Connecticut, a $2.5 million grant to test new methods of solving social problems caused by slums. The city's schools are to be geared to encourage people in slums and blighted areas to help themselves. Fifteen new schools will be built and older ones improved so that they can serve as year-round public facilities, open 12 to 16 hours a day. Every aspect of the school system will be organized around serving this community purpose and teachers will be specially trained to deal with problems that come up in urban renewal areas. A new nonprofit organization, Community Progress, Inc., will be set up to operate out of the community school, integrating a wide variety of health, education and welfare services.

NEW URBAN AND REGIONAL RESEARCH AND TRAINING PROGRAMS

Division of Urban Studies, Cornell University

A new Division of Urban Studies has been established at Cornell University. The new division will be a part of the Center for Housing and Environmental Studies, which has appointed Barclay C. Jones, Associate Professor of City and Regional Planning, as Associate Director for Urban Studies. The Division will focus attention on problems of city growth and development and will stimulate and coordinate research projects on urban problems under the investigation of various persons and groups on the Cornell campus.

Several abstracts of work in progress at the new Division are included in this issue of the Digest.

(c) From ASPO Newsletter, June and September, 1962.

Division of Urban Affairs, University of Delaware (d)

A grant from the Ford Foundation has established the Division of Urban Affairs at the University of Delaware, to demonstrate a university program of research, service and education activities in urban areas comparable to agricultural counterparts. The program will transfer and expand the land-grant college approach of the rural field to the urban setting which predominates in the State of Delaware.

The Ford grant was received in the summer of 1961, and the Division has since been operating with a skeleton staff. The initial service being undertaken by the Division is assisting the establishment of planning a agencies and processes, and directing planning aid in smaller municipalities.

In the future the Division will, in conjunction with other organizations, establish a Delaware Data Center which will systematically acquire data in the fields of economics, sociology and government. It will serve as a center for research on urban problems and will work closely with schools and universities through the media of joint appointments, advisory capacity of staff, use of research sources and library, and conferring of fellowships in urban affairs.

Institute of Urban Life, Loyola University

A new Institute of Urban Life has been established in Chicago. The Institute is a non-profit corporation which is affiliated with Loyola University of Chicago for the purpose of developing an interdisciplinary curriculum of urban studies leading to advanced degrees at that institution. The Institute will undertake contract research assignments on urban problems. The University does not exercise control over the research program of the Institute, which is legally distinct from the University. John McMullen Ducey is the President of the new Institute.

Program in Urban and Regional Planning, Northwestern University

Dr. William L. Garrison, Professor of Geography at Northwestern University, has been named to direct the Technological Institute's new program in urban and regional planning. The program will lead to a Ph. D. in planning and is designed to turn out planning researchers. The new graduate curriculum has a core of three planning courses but most of the student's time will be spent taking courses in social sciences, applied mathematics and engineering.

Public Administration and Metropolitan Affairs Program, Southern Illinois University

A Public Administration and Metropolitan Affairs Program, headed by Dr. Seymour Z. Mann, has been established at the Edwardsville Campus of

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(d) From Metropolitan Area Problems, July-August, 1962.

Southern Illinois University. The program is a part of the University-wide Area Services Division. By encouraging and supporting urban research it is intended that the program will become the storage center for all data and materials relevant to the growth and development problems of the Illinois portion of the St. Louis metropolitan area. Through such studies it is anticipated that an enlarged understanding of the economic, social, and political processes in the metropolitan area will result, and that these findings will be made available to citizens and officials to aid them in the making of public policy decisions relevant to area development and inter-governmental cooperative efforts over the whole of the metropolitan area. Research activities, where feasible, will be organized so that they might be complementary and supplementary to related work being conducted in other places. It is also the intention of the program to aid in the development of academic programs that will make available trained public service personnel with a background of urban studies. The professional staff for the Program is drawn primarily from the ranks of regular faculty members.

Department of Urban Studies, American Municipal Association (e)

The American Municipal Association has established a Department of Urban Studies and has named Andrew S. Bullis, Jr. as its Director. Mr. Bullis was formerly the Director of the Bureau of Municipal Affairs of the Commonwealth of Pennsylvania. The Department will undertake basic and long range research into municipal problems, helping cities continue to lead the way in solving their urban problems. Courses of action will be studied for consideration as possible parts of the "National Municipal Policy", the program of the American Municipal Association.

The Department of Urban Studies will also undertake contract work for federal government agencies, using the wealth of experience and resources available to it from its broad membership.

Canadian Council on Urban and Regional Research (f)

Additional information has been received concerning the new Canadian Council on Urban and Regional Research which was formed last spring. The Council has received a $78,000 grant from the Canadian Government from Housing Act funds which is expected to cover operating expenses of the Council for the first 15 months, ending in December, 1963. The Ford Foundation has given the Council a grant of $500,000 to be used over a 5-year period to assist research work in urban and regional problems throughout Canada. It is anticipated that these grants will be supplemented, on an increasing scale, by donations from other sources, public and private.

The principal objectives of the Council are to encourage and support urban and regional research programs, to aid the understanding of planning

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(e) From the American Municipal News, August 14, 1962.

(f) From The Listening Post (Canadian Federation of Mayors and Municipalities) August, 1962, and the ASPO Newsletter, October, 1962.

problems by administrators and the general public, and to provide opportunities for the exchange of research data and techniques. It is anticipated that the Countil's activities will include bibliographical services, data analyses, development and dissemination of technical information and educational aids, and publishing of pertinent literature. Headquarters will be in Ottawa, and membership will be open to governmental representatives and organizations, as well as to those individuals engaged in urban and regional development and allied disciplines. The Council's governing body will consist of members of Canadian academic, governmental and professional fields, from which will be drawn an executive committee to deal with current affairs, and a series of advisory committees which will be in charge of specialized functions. The organization will operate with a full-time professional staff under the guidance of an executive director.

Committee on Urbanization, Social Science Research Council

The Committee on Urbanization of the Social Science Research Council has been meeting since 1958 to study the current state of knowledge concerning urbanization in important areas of the disciplines represented by its members - anthropology, economics, geography, history, political science and sociology. The committee has completed its survey and is now preparing a monograph which will outline the current status of research in urbanization and will identify selected areas needing more research. The following manuscript outline gives an idea of the subjects covered: Ch. 1 Introduction and Overview (Editors); Part I - Status of Research in Urbanization Ch. 2 History (Lampard, Eric E.); Ch. 3 Sociology (Sjoberg, Gideon); Ch. 4 Economics (Thompson, Wilbur R.); Ch. 5 Political Science (Sayre, Wallace S. and Polsby, Nelson W.); Ch 6 Geography (Ginsburg, Norton S. and Mayer, Harold); Part II - Selected Areas of Research, Ch. 7 The Industrial City (Sjoberg, Gideon); Ch. 8 Cities in Densely Populated Countries (Keyfitz, Nathan); Ch. 9 Research Frontiers in Urban Geography (Berry, Brian); Ch. 10 Priorities in Economic Aspects of Urban Research (Vernon, Raymond); Ch. 11 On the Spatial Structure of Cities in the Two Americas (Schnore, Leo F.); Ch. 12 Folk-Urban Continuum (Lewis, Oscar); Folk-Urban Continuum (Hauser, Philip M.); Ch. 13 Demographic Aspects of Urban Research (Hauser, Philip M.); Ch. 14 Urbanization and Economic Development (Hauser, Philip M.); Ch. 15 Next Steps in Urban Research (Editors).

The monograph is scheduled to be published in late 1963 or early 1964. Professor Philip M. Hauser, University of Chicago, is the chairman of the committee.

Regional Research Project, U. S. Department of Commerce

Recent growth experience of the nation's regions is the subject of a comprehensive study currently underway in the U. S. Department of Commerce's Office of Economic Programs, according to Edgar S. Dunn, director. Purpose of the study is twofold. In part, it is intended to provide research information useful for policy guidance within the Department itself, vis-a-vis efforts to promote economic stability and improved rates of economic growth. In part, it is intended to provide new research materials to students of regional and local economies throughout the country.

Growth performance of the various regions will be examined by comparing actual shifts in employment during the decades 1940-1950 and 1950-1960 with the shifts which could have been expected had the component parts of the region's economy experienced the same vote of growth as that experienced in the nation as a whole. Particular attention will be directed to the relative influence of "competitive" and "compositional" effects, "competitive" effects being those attributable to changes in the competitive position of given industries, and "compositional" effects being those attributable not to changes in competitive position but to the mix of activities in the region.

A UNIVAC machine program has been drafted to perform basic computations for all states, metropolitan areas and counties in the country. Data point-outs will be made available on request to other research groups, and several analytical volumes will be prepared by O.E.P.

RESEARCH MATERIALS

New Series of 1960 Population Census Reports (g)

The Bureau of the Census, Department of Commerce, has started publication of a series of reports on the detailed characteristics of the population, based on 25 per cent sample data collected in the 1960 Population Census. This series, designated as PC(1)-D, will include 53 reports-- a United States Summary and one for each of 50 States, the District of Columbia, and Puerto Rico. The first report--Vermont--was issued in March. The series is scheduled to be completed by the end of the year, with the majority of the reports to be published during the summer and fall.

These reports will present cross-classifications by age, color, sex, and other characteristics for most of the subjects covered in the 1960 Census of Population. They will also show more information on families than previously published, as well as data on single years of age, detailed occupation, and detailed industry.

The subjects to be covered include nativity, place of birth, country of origin of the foreign stock, place of residence in 1955, school enrollment by level and type, years of school completed, martial status, families and their composition, fertility, veteran status, employment status, hours worked, weeks worked in 1959, year last worked, occupation, industry, class of worker, place of work, means of transportation to work, and income of persons and families. Each subject will be shown for some or all of the following areas: States and their urban, rural-nonfarm, and rural-farm parts; and large counties, cities and standard metropolitan statistical areas.

(g) From Statistical Reporter, April, 1962.

The reports are individually priced and may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., or any U. S. Department of Commerce field office. Announcement and order forms are available upon request to the Publications Distribution Section, Bureau of the Census, Washington 25, D. C.

Two New Samples of the Population of the United States (h)

The Bureau of the Census has completed its plans for making available for public use two samples of the population of the United States, based on the returns of the 1960 Census. These samples were developed in response to strong recommendations by a number of social scientists that such material would be a valuable tool for researchers.

The One-in-a-Thousand Sample.--The Census Bureau will make available on a cost basis reels of magnetic tape or a set of punchcards containing the separate records of the population characteristics of each of approximately 180,000 persons, comprising a 0.1 percent sample of the population of the United States. The information will include substantially all of the characteristics of persons enumerated in the 25 percent sample portion of the 1960 Population Census.

This material will enable potential users to prepare analytical tabulations of the characteristics of the population of the United States. The names of the respondents and certain of the more detailed items on place of residence and some other characteristics will not be revealed and the sample will be limited to a relatively small subsample of the complete set of records. Therefore, it has been determined that making records available in this form will not violate the law under which the census was conducted, which specifies that the records must be treated as confidential.

The most complete record will be available as a 120-digit record for each person on a maximum of 20 reels of magnetic tape suitable for use as input to the more common types of electronic computers. In addition to characteristics of the person, this record will also include selected characteristics of the household, family, and subfamily (if any) of which the person is a member. The record will also contain a few of the characteristics of an "associated person," that is, the spouse of a married adult, or the father or mother of a child. The record also will contain selected characteristics of the housing unit in which the person lives.

On the magnetic tape the record for the head of the household will be followed by the records for the other members of the household. Thus, it will be possible to prepare tabulations in which the characteristics of any person in a family are associated with characteristics of other persons in the family, or with characteristics of the family as a whole or of the housing unit in which the family lives. The sample will be self-weighting, i.e., each person in the sample will be assigned a weight of 1,000.

(h) From the Statistical Reporter, June, 1962.

Estimates for the universe may be obtained by adding three zero's to the uninflated count.

These records also will be available as a set of approximately 180,000, 80-column punchcards. The punchcards will contain most of the characteristics of the person and a selection of the characteristics shown on the tape record of the household, family, subfamily (if any) of which the person is a member, of an associated person, and of the housing unit in which he lives. A household and family number on each punchcard will permit the assembly of punchcards for all members of the same household for more detailed analysis.

The most detailed area identification shown on the record will be the four geographic regions of the United States and the size of urban place, size of urbanized area, and size of SMSA of residence. The information on place of residence in 1955 and on place of work also will be presented in a consolidated form.

The One-in-Ten-Thousand Sample.--The Census Bureau will also make available on a cost basis a set of punchcards comprising a 0.01 percent sample of the U. S. population. This sample will be drawn from the above-mentioned one-in-a-thousand set of punchcards, consist of approximately 18,000 cards, and contain the same population and housing data.

Availability and Cost.--It is anticipated that these materials will be available during the late fall of 1962. The Population Council has provided funds to cover, for nonprofit organizations, their prorated share of the cost of producing the master tapes and punchcards. As a result, for such organizations the cost will be $1,500 for the 0.1 percent sample on tape or punchcards and $500 for the 0.01 percent sample on punchcards, plus shipping charges from Washington, D. C. for either punchcard sample. For other organizations, the cost is expected to be between $4,000 and $6,500 for the 0.1 percent sample and about $750 for the 0.01 percent sample, including their prorated share of the cost of producing the master copy. Further information concerning these materials may be obtained by writing to the Director, Bureau of the Census, Washington 25, D. C.

Housing Reports On Recent Movers (i)

The Bureau of the Census, Department of Commerce, has published the first reports in the Components of Change series designated as Part 1B (Inventory Characteristics) of Volume IV of the 1960 Census of Housing. The Part 1B reports present statistics on the characteristics of present and previous residences of recent movers (households that moved in 1958 or 1959), cross-tabulations of the 1959-1950 value or rent for units that were the "same" in 1950 and 1959, and number of rooms by selected characteristics for new construction. This series comprises separate reports for each of 2 standard consolidated areas (SCA), 15 standard metropolitan statistical areas, and for the United States, by regions. Publication of the SCA and SMSA reports is scheduled for completion by the end of July. The report for the United States is expected to be published by September.

(i) From Statistical Reporter, June, 1962.

Reports for Part 1A of Volume IV (Components of Inventory Change, 1950-1959 Components) have been released for the same 17 metropolitan areas to be covered in the Part 1B series. The report for the United States is expected to be printed in August. The Part 1A reports present the basic counts and characteristics of changes in the housing inventory, 1950 to 1959, such as new construction, conversion, merger, demolition, and units which remained the "same."

The series of reports which constitute Part 2 of Volume IV (Components of Inventory Change, 1957-1959 Components) will present counts and characteristics of changes in the housing inventory, 1957 to 1959. These reports are to be published between August and December 1962.

Copies of reports in the Volume IV, Parts 1A and 1B, series may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Reports for individual areas are 30 cents each and the U. S. summary is $1.

New Guide to Published and Unpublished 1960 Housing Census Data (j)

A data-finding guide covering all final reports as well as unpublished tabulations of the 1960 Census of Housing has been issued by the Bureau of the Census, Department of Commerce. Entitled "U. S. Census of Housing, 1960: Availability of Published and Unpublished Data," the new booklet includes a general index for all series of final reports and detailed subject guides for the individual series.

The general index lists alphabetically all the items in the individual subject guides, and shows the volumes and series in which each appears. The subject guide for each volume (or series) lists the items covered, the tables in which each item appears, all cross-tabulations, the areas for which data are available, and the types of housing units and households for which specific tabulations were made. There is also an appendix showing maximum and minimum detail for the categories and class intervals of the individual items.

A separate section is devoted to material available in unpublished tabulations.

Copies of "U. S. Census of Housing, 1960: Availability of Published and Unpublished Data," (13 pages, 25 cents each) may be purchased from the Bureau of the Census, Washington 25, D. C. A similar publication covering the 1960 Census of Population (35 pages, 50 cents) is also available from the Bureau of the Census.

Metropolitan Housing Reports From 1960 Census of Housing (k)

Publication of the "Metropolitan Housing" reports, Series HC(2), of

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(j) From Statistical Reporter, August, 1962.

(k) From Statistical Reporter, August, 1962.

the 1960 Census of Housing has been started by the Bureau of the Census, Department of Commerce. According to present schedules, publication of this series of reports will be completed nine months earlier than the comparable 1950 reports. Separate reports will be issued for the United States, each of the nine geographic divisions, each standard metropolitan statistical area (SMSA) with 100,000 inhabitants or more in the United States and for the San Juan and Ponce SMSA's in Puerto Rico. There will be separate tables for each city of 100,000 inhabitants or more in the SMSA. The series will subsequently be bound and issued as Volume II of the 1960 Census of Housing. It is expected that all area reports will have been released by the end of September.

The HC(2) series contains cross-tabulations of housing and household characteristics presented separately for owner-occupied and renter-occupied units. Characteristics shown include condition and plumbing, household composition, number of rooms, units in structure, rent, value, and income. Additional data are presented on number of persons, types of households, year occupants moved into unit, year structure was built, equipment items, and ratios of value and rent to income. Separate tabulations are presented for vacant units and for units in which specified facilities are shared or lacking.

Separate tabulations will be shown for SMSA's or cities with 25,000 or more housing units occupied by nonwhites, and for SMSA's and cities in California and Texas with 25,000 or more housing units with white household heads with Spanish surnames. Similar data will be published for New York City and the New York SMSA for housing units with household heads of Puerto Rican birth or parentage.

The "Metropolitan Housing" reports will be individually priced and may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

HHFA - Census Bureau Research Program

The Housing and Home Finance Agency and the Census Bureau have announced that their joint program, "Sales Volume and Sales Prices of New Homes," which was initiated in fiscal year 1962 is to be continued through fiscal year 1963. A preliminary report in the series has been published and a second report is due for publication before the end of November, 1962.

The project entitled "Special Census Data on Housing Conditions of the Elderly" has been completed and selected data from these tabulations are to be published as "Volume VII of the Census Report, Housing of Senior Citizens." Photo copies of these tabulations are now available for purchase. In addition, the HHFA has recently published an analysis of the major findings of the study, entitled "Senior Citizens and How They Live, Part I: The National Scene." Additional analyses are to be published in the near future.

Further information on the HHFA research program may be obtained from Morton J. Schussheim, Assistant Administrator, Office of Program Policy, Census History Project (l)

As part of its continuing series of publications resulting from the 1960 Census History Project, the Bureau of the Census has issued a report on the processing of data from the 1960 Censuses of Population and Housing. The new report includes a description of the steps taken from the receipt of enumeration books containing the information collected by the enumerators through completion of the tabulations on high-speed electronic computors and preparation of the statistical tables. The title is "United States Census of Population and Housing, 1960: Processing the Data."

Three other reports in the Census History series which have appeared to date describe the principal enumeration forms and procedures of the 1960 Censuses of Population and Housing, the 1959 Census of Agriculture, and the Survey of Components of Change and Residential Finance.

The report on data processing (79 pages, 50 cents) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Statistics In 1962 County & City Data Book Available On Cards (m)

As a byproduct of the method of preparing the 1962 edition of the "County and City Data Book" the Bureau of the Census now has available for the cost of reproduction a deck of punchcards containing all of the statistics to be presented in this volume. Data for the new edition were selected primarily from the 1960 Censuses of Population and Housing, the 1959 Census of Agriculture, the 1958 Censuses of Business, Manufactures, and Mineral Industries and the 1957 Census of Governments. Also included are current data from other governmental and private agency reports. Geographic areas covered are counties, standard metropolitan statistical areas (SMSA's), urbanized areas, and cities and unincorporated places of 25,000 inhabitants or more.

For each county, 161 statistical items are available on cards; for each incorporated city, 163 items; for each SMSA, 128 items; and for each urbanized area and unincorporated place, 67 items. The data are arranged so the material for any one county or city are on 20 cards; for an SMSA on 16 cards; and for an urbanized area or unincorporated place on 8 cards.

The estimated cost of reproduction of the entire set of approximately 82,000 cards is $850 plus shipping charges. Selections of cards for specified areas or particular items may also be purchased at a proportionate reduction in cost, or various items can be combined into one or more cards from a greater number of cards, at cost. The preparation of a computer tape file containing all or part of the data presented on the punchcards and in the Data Book can also be arranged.

(l) From Statistical Reporter, June, 1962.

(m) From Statistical Reporter, June, 1962.

A pamphlet which outlines the contents of the Data Book in the form of the column headings in its tables (these are identical to the card layouts) is available free of charge upon request to the Publications Distribution Section, Bureau of Census, Washington 25, D. C. For more information concerning cost of punchcards or computer tapes, compatability of tapes with various computers, or similar matters, write to: Chief, Statistical Reports Division, Bureau of the Census, Washington 25, D. C.

Manufacturing Plants Data Rearranged (n)

Last year the Bureau of the Census issued a special report from the 1958 Census of Manufactures entitled "Location of Manufacturing Plants by Industry, County and Employment Size," Series MC58(S)-2 (SR No. 285, Sept. '61, p. 131). This report presented establishment counts for each of approximately 425 manufacturing industries (based on the 1957 SIC) by county and employment-size class. Seven employment-size classes were included.

With financial assistance from the Area Redevelopment Administration and others, a companion series of reports has been published with the data rearranged in State, county and industry sequence under the title, "Location of Manufacturing Plants By County, Industry and Employment Size," (Series MC58(S)-3). This is the first time that the data are being published in a county-by-industry sequence.

This publication presents only establishment counts that do not disclose confidential company information. Therefore, considerably more detail can be provided than can be published for other measures of manufacturing activity (employment, payrolls, shipments, etc.) in the census volumes. Accordingly, these two series of publications fill in many of the data gaps necessarily arising in the standard tables of the 1958 Census of Manufactures.

The MC58(S)-3 series consists of a separate report for each of the nine Census geographic divisions, with all counties having one or more manufacturing plants arranged in alphabetical sequence within each State. The industries located in each county appear in the 4-digit SIC (1957) sequence. The employment-size class assigned to each plant is based on the "average" 1958 employment reported for the plant on its 1958 Census of Manufactures return.

The set of reports in county-by-industry sequence, MC58(S)-3, costs $4.50, and in industry-by-county sequence, MC58(S)-2, $6.25. Reports for the various geographic divisions are individually priced. All reports may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., or any Department of Commerce field office. An announcement and order form describing both series of reports may be obtained free of charge from the Publications Distribution Section, Bureau of the Census, Washington 25, D. C.

(n) From Statistical Reporter, May, 1962.

Summary Statistics of 1958 Census of Business (o)

The three final volumes of the 1958 Census of Business have been published by the Bureau of the Census, Department of Commerce. They are Volume I-Retail Trade, Summary Statistics; Volume III-Wholesale Trade, Summary Statistics, and Public Warehousing; and Volume V-Selected Services, Summary Statistics. Each volume includes chapters on employment size, legal form of organization, single units and multiunits, sales (or receipts) size, and tabulations on administrative offices and auxiliaries. In addition, individual volumes include the following material:

Wholesale Trade: Data on commodity line sales, petroleum bulk stations and terminals, receivables and bad-debt losses, and sales by class of customer; special report on public warehouses, and a chapter of the miscellaneous data including material not previously published on vending machine operators, grain elevators, exporters and importers, wagon and truck distributors and rack merchandisers.

Selected Services: Data on power laundries, hotels, motels and tourist courts and motion pictures; and supplementary information on advertising agencies, auto and truck rental, coin-operated amusement devices, bowling establishments and commercial spectator sport establishments.

Retail Trade: Supplementary information on drug stores, lumber yards and merchandise vending machine operators.

Much of the material on the summary statistics volumes was published earlier in the Subject Reports series of the 1958 Census.

Release of the three volumes of summary statistics completes the publication program of the 1958 Census of Business. Three volumes of area statistics (Vol. II-Retail Trade, Vol. IV-Wholesale Trade, and Vol VI-Selected Services) were published earlier.

All bound volumes of the 1958 Census may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Prices are as follows: Vol. I, $7.50, Vol. II, $14.50, Vol. III, $6.75, Vol. IV, $6.00, Vol. V, $6.50, Vol. VI, $13.00.

Preliminary Census of Governments Report on Public School Systems (p)

Data on public school systems for the school year 1961-62 have been issued by the Bureau of the Census, Department of Commerce. Published as a preliminary report of the 1962 Census of Governments under the title "Public School Systems in the United States, 1961-62," the report presents data on

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(o) From Statistical Reporter, July, 1962.

(p) From Statistical Reporter, July, 1962.

school districts and dependent school systems for the 1961-62 school year and public school enrollment as of October 1961. It shows numbers of school systems and public school enrollment by States, with distributions by kind of system, enrollment-size, number of schools operated, grades provided, type of area served. The related National totals include figures separately for school systems located within standard metropolitan statistical areas and those outside such areas.

New Reports Define Census County Divisions in 18 States (q)

The first of a series of reports describing the boundaries of census county divisions has been published by the Bureau of the Census, Department of Commerce. Issued under the general title, Census County Division Boundary Descriptions, each report will cover one of the 18 States in which census county divisions have been established for statistical reporting. Census county divisions (CCD's) are county subdivisions with clearly defined permanent boundaries for areas below the county level. CCD's take the place of election districts, townships, or other minor civil divisions which change from time to time. They make accurate comparisons possible from one census to another.

The first report in the series, Arizona (11 pages, 15¢) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

FHA Reprints City Annexation Data (r)

The Federal Housing Administration has reprinted, primarily for use in FHA housing market analysis, a table entitled "Annexations of One-Fourth Square Mile or more by Cities over 5,000, 1961" as well as the accompanying analysis. The table and analysis bring up to date the series of FHA reprints of annexation data published in the Municipal Year Book. The first annexation table reprinted by the FHA was for the years 1948-1957; tables for 1958, for 1959, and for 1960 also have been reprinted.

Some of the data are subject to certain important limitations, including the fact that they are believed to be incomplete for some cities and for some years and that annexation and population figures are local estimates which may be subject to error of an undetermined degree. Despite these and perhaps other limitations, these annexation tables constitute the only single (secondary) source of estimated population annexed each year by each locality.

Single complimentary copies of any of the five table reprints (1948-1957, 1958, 1959, 1960, 1961) are available on request from Mr. E. W. Tomlinson, Division of Research and Statistics, Federal Housing Administration, Washington 25, D. C.

(q) From Statistical Reporter, July, 1962.

(r) From Statistical Reporter, July, 1962.

BIBLIOGRAPHIES

New Exchange Bibliographies; Council of Planning Librarians

The Council of Planning Librarians has announced the publication or planned publication of several new bibliographies in its series of Exchange Bibliographies. These are:

No. 5. CITY PLANNING: SELECTED REFERENCES FOR CITIZEN GROUPS. By Holway R. Jones, Revised September, 1962. 19 p. $1.00. Annotated. (Available at bulk rates to planning commissioners, citizen organizations, students and teachers: 5 to 9 copies, 30¢ each; 10 or more copies, 20¢ each.)

No. 22. AN ANNOTATED BIBLIOGRAPHY ON UNIVERSITY AND MEDICAL CENTER PLANNING AND DEVELOPMENT. By Kermit C. Parsons, Associate Professor of Regional Planning, Department of City and Regional Planning, College of Architecture, Cornell University, Ithaca, New York. September, 1962. 68 p. $2.00.

In Preparation

No. 23. CENTRAL BUSINESS DISTRICTS. By Mary Vance. Combines material found in nos. 12 and 16 and brings it up to date through September, 1962. To be released in November, 1962.

No. 24. SELECTED BIBLIOGRAPHY ON PLANNING, POLITICS, AND POLITICAL SCIENCE. By Charles E. Patterson, Jr. To be released in December, 1962.

No. 25. SIGNIFICANT PUBLICATIONS ON URBAN LAND USE, 1958-1961. By William F. Powers. To be released in January, 1963.

No. 26. CRAWLEY NEW TOWN: A BIBLIOGRAPHY COVERING THE PERIOD JULY, 1946, to DECEMBER, 1957. By Betty Reynolds. To be released in January, 1963.

Through the cooperation of Professor Francis Violich and the Center for Latin American Studies of the University of California, a new series of bibliographies on urban planning in Latin America was inaugurated in January, 1962. The three bibliographies listed below have been published and several others will be published in the near future.

Latin American Series

No. 1. BIBLIOGRAPHY ON URBAN PLANNING IN LATIN AMERICA. By Francis Violich, Professor of City Planning, Director of the Center for Latin American Studies, University of California, Berkeley. January, 1962. 16 p. $1.00. Annotated.

No. 2. BIBLIOGRAPHY ON URBAN PLANNING IN CHILE. By Francis Violich. April, 1962. 10 p. $1.00. Annotated.

No. 3. BIBLIOGRAPHY ON THE EVOLUTION OF CITIES IN LATIN AMERICA: THE CITIES OF PRE-COLUMBIAN AMERICA; THE COLONIAL CITIES: THE PERIOD FOLLOWING INDEPENDENCE. By Jorge E. Hardoy, Director of the Institute of Urban and Regional Planning, and Professor of Planning, University of the Litoral, Rosario, Argentina. September, 1962. 32 p. $1.00. Annotated.

The bibliographies in the regular series may be ordered singly or any number may be used to begin a subscription of ten consecutive bibliographies for $8.00. A student rate of ten consecutive bibliographies for $5.00 is also available. All orders, with accompanying check or money order, should be sent to Exchange Bibliographies, Council of Planning Libraries, 6318 Thornhill Drive, Oakland 11, California.

The Geography of Transportation

The Institute of Transportation and Traffic Engineering of the University of California has published a new bibliography on the geography of transportation. The work was compiled by Roy I. Wolfe, assisted by Beverly Hickok, and is entitled,"An Annotated Bibliography of the Geography of Transportation". The bibliography lists 792 sources in several divisions including Economics of Transportation, Concepts and Models, Classification of Transportation Systems and Urban Transportation.

Scholarly Books in America

Digest readers who do not already receive "Scholarly Books in America" may be interested to learn of this helpful publication. "Scholarly Books in America" is a listing of the publications of all the major University presses. It is published quarterly by the University of Chicago with the cooperation of the Association of American University Presses. Since many of the books dealing with urban and regional studies are now being published by university presses, this booklet is helpful in keeping abreast of new publications. "Scholarly Books in America" is free and requests for subscriptions should be addressed to the Circulation Office, 1525 East 53rd Street, Chicago 15, Illinois.

ASPO Index to National Planning Conferences

ASPO has recently published the ASPO Index to National Planning Conferences, 1909-1960. This should serve as a valuable tool to urban researchers who are interested in checking on materials from past planning conferences. The papers are listed by speaker and subject with geographic cross references. The Index was prepared by Mary Vance with a Preface by Marjorie Berger. It is available from ASPO, 1313 E. 60th Street, Chicago 37, Illinois. Price is $5.00 to ASPO members and $6.00 to nonmembers.

OTHER

Current Work of the Advisory Committee on Intergovernmental Relations

Two new research projects have been added to the work program of the

Advisory Committee on Intergovernmental Relations since our last report. These projects are:

(1) A study of intergovernmental problems arising from economic and racial disparities between central city and suburban populations.

(2) A study of jurisdictional disparities between costs and benefits of local government programs in metropolitan areas.

Several of the studies reported in earlier issues of the Digest have been approved by the Commission and are now in the process of publication. These include the following:

(1) Measures of state and local fiscal capacity and tax effort.

(2) A directory of Federal statistics for metropolitan areas.

(3) State constitutional and statutory restrictions upon the structural, functional and personnel powers of local governments.

(4) Intergovernmental responsibilities for water supply and sewage disposal in metropolitan areas.

(5) State constitutional and statutory limitations on local taxing powers.

Religious Research Association, Inc. (s)

Persons interested in the problems of the church and city should investigate the Religious Research Association, Inc. This is an organization of social scientists, clergymen, city planners, and others who are working to further the understanding of the role of religion in contemporary life that can be gained through the methods of the behavioral sciences.

The Associations quarterly *Review of Religious Research* usually contains one or more articles directly applicable to the problems of the church and the city.

Further information on the organization can be had by writing to Religious Research Association, Inc., P. O. Box 228, Cathedral Station, New York 25, New York.

Urban History Group

Many readers of the Digest will be interested in the activities of an informal organization known as the Urban History Group. The organization was formed several years ago to serve as a medium of communication among historians interested in cities and urbanization. The Urban History Group publishes a newsletter which comes out three times a year, and sponsors sessions on urban history at some of the historical association meetings.

(s) From the *ASPO Newsletter*, October, 1962.

Further information on the group can be obtained from Charles N. Glaab, The State Historical Society of Wisconsin, 816 State Street, Madison 6, Wisconsin.

First Latin American Congress of the Regional Science Association

The Regional Science Association, with the help of the new Centro de Estudios del Desarrollo (CENDES), at the Universidad Central de Venezuela, in Caracas, Venezuela, recently completed the first Regional Science Association meetings to be held in Latin America. The congress was held at CENDES on November 12-14, 1962, and on the following two days Walter Isard conducted a series of open seminars on regional development problems. Participants at the meetings included faculty members of CENDES, staff members of the United Nations Economic Commission for Latin America, the Regional Science Research Institute, the Joint Center for Urban Studies (Howard-M.I.T.), and the regional development groups in Brazil, Venezuela and other South American countries.

AVAILABLE BACK ISSUES OF RESEARCH DIGEST

A few copies of the following back issues of the Research Digest are still available, and may be purchased at the regular price of $1.00 per copy.

Vol. 3	No. 2	November, 1956
Vol. 5	No. 2	November, 1958
Vol. 7	No. 2	November, 1960
Vol. 8	No. 2	November, 1961
Vol. 9	No. 1	April, 1962

Copies of both the Cumulative Index to Volumes 1-7 and the separate Index to Volume 8 are also available. One copy free to subscribers. Extra copies $1.00 each. An Index to Volume 9 will be issued in the near future.

~~REF.~~

RESEARCH DIGEST

Index to Volume 9

1962

Bureau of Community Planning
University of Illinois
Urbana, Illinois

UNIVERSITY OF ILLINOIS

BUREAU OF COMMUNITY PLANNING

Director: Joseph M. Heikoff

RESEARCH DIGEST

Editor: Scott Keyes

Founded in 1954 by an informal organization known as the Urban Planning Research Group, the Research Digest is prepared and distributed semi-annually, in April and November, by the Bureau of Community Planning of the University of Illinois. Its objective is to serve as a medium of communication among individuals and groups engaged in urban and regional research. Abstracts are invited covering research projects recently initiated, projects well underway on which significant progress or findings can be reported, and projects recently completed. Brief notes on items of interest to researchers in this field are also desired, as are special articles in keeping with the character of the publication. Subscription is $2.00 per year. Address all communications to Research Digest, Bureau of Community Planning, University of Illinois, 1202 West California Avenue, Urbana, Illinois.

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